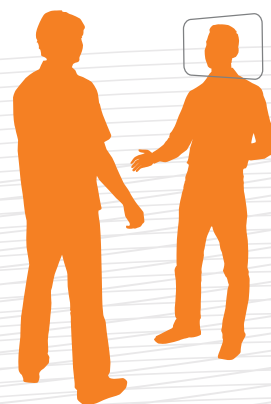


# TANDBERG Content Server



CHANGING  
THE WAY PEOPLE  
COMMUNICATE



## ADMINISTRATOR GUIDE

Version S3.2  
November 2008



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# TANDBERG Content Server

## Introduction

The TANDBERG Content Server provides users with a quick and easy way to record video meetings and view them live or on demand. The following page provides an overview of the main features.

We recommend that you check out the TANDBERG web site regularly for updated versions of this manual:

<http://www.tandberg.com/support/documentation.php>

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## New in Version 3.2

- Support for RSS feeds.  
See [RSS feeds](#) section for more information.
- Support for automated media flow to Podcast Producer or iTunes U.  
See [The Distribution section - Podcast Producer and iTunes U](#) for more information.
- Support for selecting a conference recording by its streaming bandwidth from all available recordings.
- Support for easily sharing a link to a conference.
- Added the Server Overview page for current usage and system health information.
- Added an overview of the client environment check in user Preferences.

## Flexible Content Creation

- Customizable Personal and System Recording Aliases automatically apply recording and streaming settings, conference permissions and metadata.
- Support for dialing in and dialing out from the Content Server.
- TANDBERG Management Suite (TMS) integration:
  - Support for Personal and System Recording Aliases through integration with TMS 11.8 and above..
  - Backwards compatibility with TMS 11.7.

## Recording

- Large scale content creation from up to five concurrent video conferences (if registered to a gatekeeper).

- Powerful predefined system templates (see [Recording Templates at a Glance](#) for a full list of system templates and their recording and streaming outputs).
- Dual Stream support for all calls.

## Streaming

- Live streaming of video meetings in multiple formats and data rates.
- Multicast and unicast streaming.
- In-built Windows Media™ streaming server.
- Integration with external streaming servers for publishing Windows Media™, RealNetworks® Real Media (RealAudio® and RealVideo®) and QuickTime® compatible MPEG4 content.

## Authentication

- Support for local, LDAP and domain authentication.
- Support for guest (unauthenticated access) with PIN-protection for conferences.

## Permissions

- Access-list based model for viewing live and recorded conferences and editing recorded content.

## Content Library

- Searchable content library for viewing live and recorded content.
- Ability to assign customized Categories to conferences and sort conferences by Category.

## Content Viewing Experience

- Indexing content for quick retrieval by using the Index.

- Picture in Picture, Two Videos, Joined, and Switching layouts available.
- Ability to switch between different views of the video streams and the index (if available).

## Content Editing

- Ability to add and manage index points in the Content Editor.
- Ability to set the start and end points for conference playback and create a playlist for playback of up to two conferences.

## Administration

- User-friendly web-based interface for administrative system configuration.
- Access to administrative logs and Windows Server from the Content Server web interface.

## Gatekeeper Settings

- Ability to register the Content Server with the gatekeeper as a Terminal or a Gateway.
- Native support for TANDBERG Expressway.

## Scalability

- Support for media storage in an external storage location, such as Network Attached Storage.

## New in Version 3.0

- Support for H.264.
- Support for encrypted H.323 calls.
- Support for SIP.
- Wide formats:
  - H.263: w228p, w448p, w576p
  - H.264: w228p, w448p, w576p, w720p
- New call model with five concurrent calls transcoded to the same formats.
- Ability to add outputs to recorded conferences for on-demand viewing with the Offline Transcoder.
- An easy-to-use, graphical Template Editor, with a wide selection of layouts and resolutions.
- Added MPEG4 format for viewing and downloads.
- Optimized downloadable media for portable devices—iPod and Zune.
- Updated Content Library interface, with thumbnails and automatic bandwidth detection.
- Context-sensitive online help.

## New in Version 3.1

- Updated Windows Media multicast support to allow streaming on a fixed port.
- Added support for multicast streaming of MPEG4 video directly off the Content Server.

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For your protection please read these safety instructions completely before you connect the equipment to the power source. Carefully observe all warnings, precautions and instructions both on the apparatus and in these operating instructions.

Retain this manual for future reference.

## Water and Moisture

- Do not operate the apparatus under or near water—for example near a bathtub, kitchen sink, or laundry tub, in a wet basement, near a swimming pool or in other areas with high humidity.
- Never install jacks for communication cables in wet locations unless the jack is specifically designed for wet locations.
- Do not touch the product with wet hands.

## Cleaning

- Unplug the apparatus from communication lines, mains power-outlet or any power source before cleaning or polishing.
- Do not use liquid cleaners or aerosol cleaners.
- Use a lint-free cloth lightly moistened with water for cleaning the exterior of the apparatus.

## Ventilation

- Do not block any of the ventilation openings of the apparatus. Never cover the slots and openings with a cloth or other material.
- Never install the apparatus near heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not place the product in direct sunlight or close to a surface directly heated by the sun.

## Lightning

- Never use this apparatus, or connect/disconnect communication cables or power cables during lightning storms.

## Dust

- Do not operate the apparatus in areas with high concentration of dust.

## Vibration

- Do not operate the apparatus in areas with vibration or place it on an unstable surface.

## Power Connection and Hazardous Voltage

- The product may have hazardous voltage inside. Never attempt to open this product, or any peripherals connected to the product, where this action requires a tool.
- This product should always be powered from an earthed power outlet.
- Never connect attached power supply cord to other products.

In case any parts of the product have visual damage never attempt to connect mains power, or any other power source, before consulting service personnel.

- The plug connecting the power cord to the product/power supply serves as the main disconnect device for this equipment. The power cord must always be easily accessible.
- Route the power cord so as to avoid it being walked on or pinched by items placed upon or against it. Pay particular attention to the plugs, receptacles and the point where the cord exits from the apparatus.
- Do not tug the power cord.
- 

- If the provided plug does not fit into your outlet, consult an electrician.
- Never install cables, or any peripherals, without first unplugging the device from it's power source.

## Servicing

- Do not attempt to service the apparatus yourself as opening or removing covers may expose you to dangerous voltages or other hazards, and will void the warranty. Refer all servicing to qualified service personnel.
- Unplug the apparatus from its power source and refer servicing to qualified personnel under the following conditions:
  - If the power cord or plug is damaged or frayed.
  - If liquid has been spilled into the apparatus.
  - If objects have fallen into the apparatus.
  - If the apparatus has been exposed to rain or moisture.
  - If the apparatus has been subjected to excessive shock by being dropped.
  - If the cabinet has been damaged.
  - If the apparatus seems to be overheated.
  - If the apparatus emits smoke or abnormal odor.
  - If the apparatus fails to operate in accordance with the operating instructions.

## Accessories

- Use only accessories specified by the manufacturer, or sold with the apparatus.

## Communication Lines

- Do not use communication equipment to report a gas leak in the vicinity of the leak.

Thank you for buying a product which contributes to a reduction in pollution, and thereby helps save the environment. Our products reduce the need for travel and transport and thereby reduce pollution. Our products have either none or few consumable parts (chemicals, toner, gas, paper). Our products are low energy consuming products.

## TANDBERG's Environmental Policy

Environmental stewardship is important to TANDBERG's culture. As a global company with strong corporate values, TANDBERG is committed to following international environmental legislation and designing technologies that help companies, individuals and communities creatively address environmental challenges.

TANDBERG's environmental objectives are to:

- Develop products that reduce energy consumption, CO<sub>2</sub> emissions, and traffic congestion.
- Provide products and services that improve quality of life for our customers.
- Produce products that can be recycled or disposed of safely at the end of product life.
- Comply with all relevant environmental legislation.

## European Environmental Directives

As a manufacturer of electrical and electronic equipment TANDBERG is responsible for compliance with the requirements in the European Directives 2002/96/EC (WEEE) and 2002/95/EC (RoHS).

The primary aim of the WEEE Directive and RoHS Directive is to reduce the impact of disposal of electrical and electronic equipment at end-of-life. The WEEE Directive aims to reduce the amount of WEEE sent for disposal to landfill or incineration by requiring producers to arrange for collection and recycling. The RoHS Directive bans the use of certain heavy metals and brominated flame retardants to reduce the environmental impact of WEEE which is landfilled or incinerated.

TANDBERG has implemented necessary process changes to comply with the European RoHS Directive (2002/95/EC) and the European WEEE Directive (2002/96/EC).

## Waste Handling

In order to avoid the dissemination of hazardous substances in our environment and to diminish the pressure on natural resources, we encourage you to use the appropriate take-back systems in your area. Those systems will reuse or recycle most of the materials of your end of life equipment in a sound way.



TANDBERG products put on the market after August 2005 are marked with a crossed-out wheeled bin symbol that invites you to use those take-back systems.

Please contact your local supplier, the regional waste administration or <http://www.tandberg.net/recycling> if you need more information on the collection and recycling system in your area.

## Information for Recyclers

As part of compliance with the European WEEE Directive, TANDBERG provides recycling information on request for all types of new equipment put on the market in Europe after 13 August 2005.

Please contact TANDBERG and provide the following details for the product for which you would like to receive recycling information:

- Model number of TANDBERG product
- Your company's name
- Contact name
- Address
- Telephone number
- E-mail.

## Digital User Guides

TANDBERG is pleased to announce that we have replaced the printed versions of our User Guides with a digital CD version. Instead of a range of different user manuals, there is now one CD—which can be used with all TANDBERG products—in a variety of languages. The environmental benefits of this are significant. The CDs are recyclable and the savings on paper are huge. A simple web-based search feature helps you directly access the information you need. In addition, the TANDBERG video systems now have an intuitive on-screen help function, which provides a range of useful features and tips. The contents of the CD can still be printed locally, whenever needed.

### 声 明

此为 A 级产品，在生活环境中，该产品可能会造成无线电干扰。在这种情况下，可能需要用户对其干扰采取切实可行的措施。

#### WARNING:

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

# TANDBERG Content Server

## Installation

An important section covering the first time installation of the Content Server.

# Preparing for Use

TANDBERG CONTENT SERVER  
ADMINISTRATOR GUIDE

## What's in the Box?

To avoid damage to the unit during transportation, the Content Server is delivered in a special shipping box, which should contain the following components:

- CD with User Guide and other documentation.
- Rack-ears and screws.
- Power cable.
- Ethernet cable.
- TANDBERG Content Server.

Please report any discrepancies to your TANDBERG Representative immediately.

## Rack Mounting (optional)

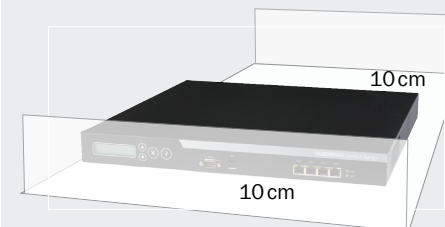
- 1 Before starting the rack mounting please make sure the TANDBERG Content Server is placed securely on a hard flat surface.



- 2 Disconnect the AC power cable, if applicable.



- 3 Make sure that the mounting space is prepared according to the [Installation Site Preparations](#) below left.



- 4 Attach the brackets to the Content Server on both sides of the unit.



- 5 Insert the Content Server into a 19" rack, and secure with screws in the front (four screws).

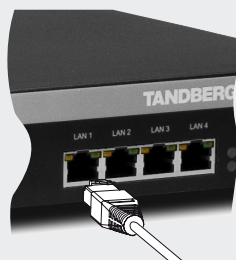


## Installation Site Preparations

- Make sure the Content Server is accessible and that all cables can be easily connected.
- For ventilation: Leave a space of at least 10cm (4 inches) behind the Content Server's rear panel and 10cm (4 inches) in front of the front panel.
- The room in which you install the Content Server should have an ambient temperature between 0°C and 35°C (32°F and 95°F) and between 10% and 90% non-condensing relative humidity.
- Do not place heavy objects directly on top of the Content Server.
- Do not place hot objects directly on top, or directly beneath the Content Server.
- Use a grounded AC power outlet for the Content Server.

## Connecting Cables

- 1 Connect a LAN cable from the **LAN 1** connector on the Content Server to your network. The **LAN 2, 3 and 4** connectors are not used and should be left open.



- 2 Connect the AC power cable to an electrical distribution socket. Press the power switch button at the back side to 1 to turn on the Content Server. On the front panel of the system the power indicator LED, marked **Pwr**, will light up.



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# IP Address Setting Configuration

## About IP Address Setting

The Content Server requires the IP Address Settings to be configured before it can be used. IP Address can be configured using the LCD Panel—see the block diagram to the right and the example on the next page.

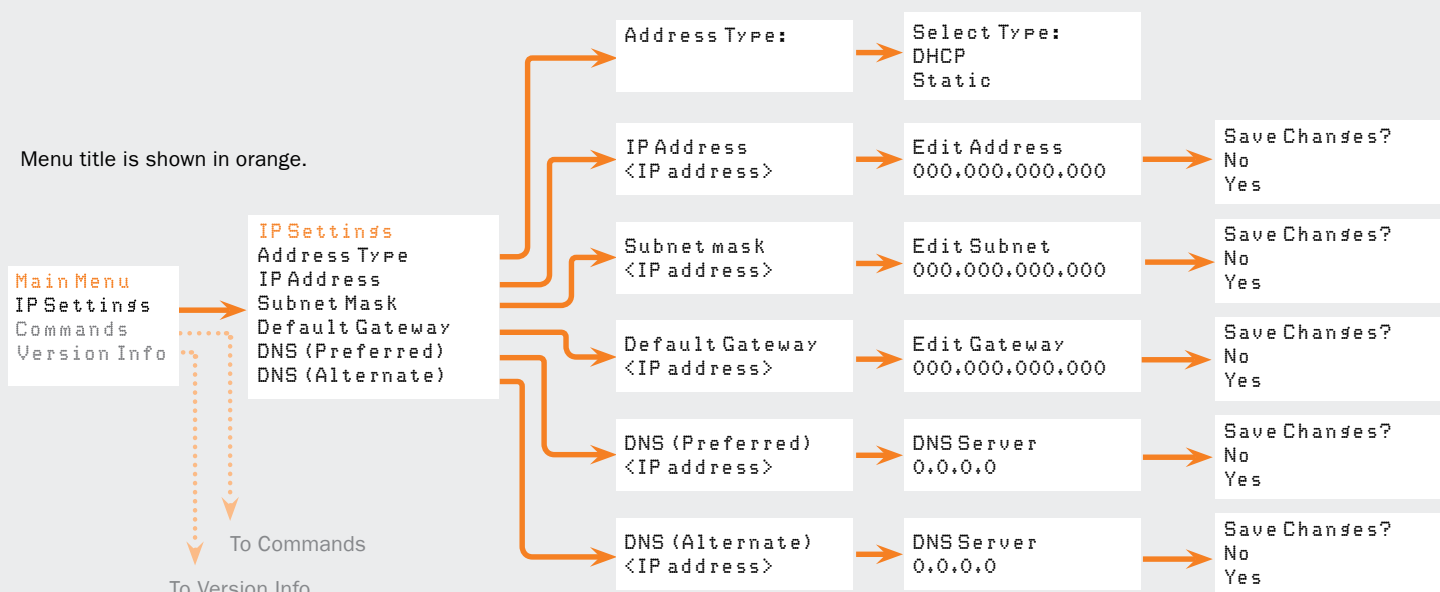
The front panel keys are used as follows:



- ✓ Use this key to enter the edit mode and confirm selection or entry.
- ✗ Use this key to return to the previous menu screen or exit the edit mode without saving the latest entry.
- ▲ Use these keys to select items in the menu, move between values in a numerical address and modify numerical values.
- ▼

## IP Settings Menus Available

Menu title is shown in orange.



# Examples of Front Panel Operation

## Set the IP Address to Static

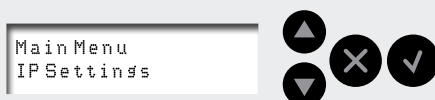
We strongly recommend that you change the IP address from DHCP to Static once the Content Server is in production.

Use the examples on this page together with the diagram on the previous page to set the IP address.

To set the subnet mask, default gateway and DNS IP addresses, follow the steps described below.

1

Press **Enter** to produce the menu. The display shows two lines at a time:

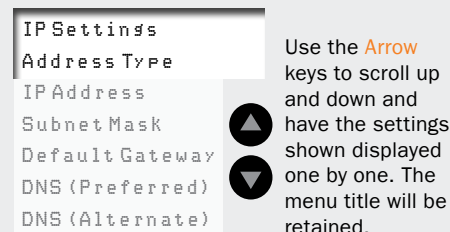


The upper line is the menu title (as shown here) or a text describing a submenu or the setting shown (as in the example to the right). The settings available can be displayed one by one (the upper line is retained) by scrolling up and down.

## Example 1: Setting the IP Address Type

2

Selecting **IP Settings > Address Type**



Use the **Arrow** keys to scroll up and down and have the settings shown displayed one by one. The menu title will be retained.

The IP Settings has six submenus. Use the **Arrow** keys to locate **Address Type**

3

Press **Enter** twice to enter the submenu:



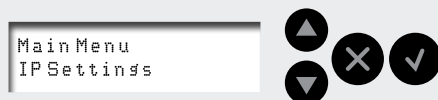
Use the **Arrow** keys to scroll down to Static.

Press **Enter** to put the change into effect and proceed to specify the IP address.

## Example 2: Setting the IP Address Itself

1

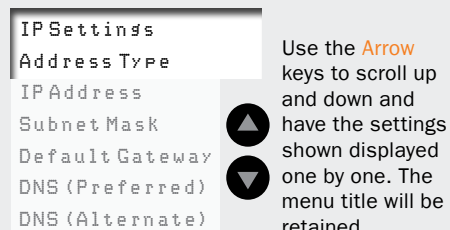
Press **Enter** to produce the menu. The display shows two lines at a time:



The upper line is the menu title (as shown here) or a text describing a submenu or the setting shown (as in the example to the right). The settings available can be displayed one by one (the upper line is retained) by scrolling up and down.

2

Selecting **IP Settings > IP Address**

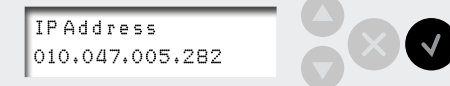


Use the **Arrow** keys to scroll up and down and have the settings shown displayed one by one. The menu title will be retained.

The IP Settings has six submenus. Use the **Arrow** keys to locate **IP Address**

3

Press **Enter** to enter the submenu:



Press **Enter** to edit the address.

The first digit will now blink.

Use the **Arrow** keys to scroll through the numbers (0–9) and press **Enter** when the number requested appears. The next digit will then start to blink.

Repeat until the final digit has been set.

4

Press **Enter** to bypass any digit not in need of adjustment.

When all digits have been set pressing **Enter** will produce the **Save Changes** menu.

Use **Arrow** keys to select applicable option.

Use **Enter** to exit the menu putting changes into effect. This will take you back to the **IP Settings** menu.

If you need to change other settings repeat the procedure selecting the applicable **IP Settings** submenu (e.g. **Default Gateway**) first.

Use **Return** to leave a menu undoing any changes. This will also take you back to the **IP Settings** menu.

# TANDBERG Content Server

## Quick Setup

The Quick Setup section will help you get your Content Server online and operational quickly. Please note that for security reasons, you should change the default administrator and the API password at setup time and before the Content Server is used in production.

# Basic H.323 Services Setup

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## About Basic H.323 Services

A quick basic setup of your TANDBERG Content Server includes:

1. Setting up H.323 services via the Content Server interface.
2. Making a test call recording.
3. Changing the administrator password and setting up server date and time on the Windows Server.

Make sure that the E.164 aliases and H.323 IDs unique on your network are valid for your gatekeeper or border controller. By default, the Content Server's H.323 ID is set to the machine name, eg.

TANDBERG-**<random number>**. The H.323 ID of a live Recording Alias is set to **Live<machine\_name>** and the H.323 ID of an on demand Recording Alias is set to **OnDemand<machine\_name>**. If upgrading from S2, the machine name will be replaced by the serial number.

You can register the Content Server with either gatekeeper or border controller. For simplicity in this document we'll use gatekeeper to refer to either device.

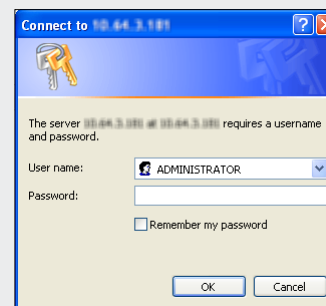
For security reasons it is important to change the password for the default local administrator account as described in the [Windows Server Setup](#) section, as well as the password for the API (if the API is enabled).

For more on setting the administrative properties and user configuration, see the [Administrator Settings](#) section.

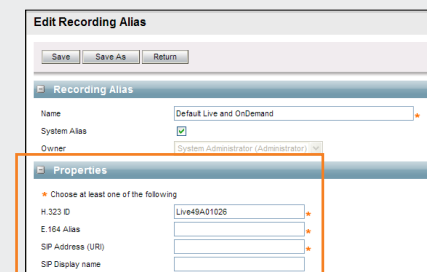
## Step 1 - Initial Setup

- 1 Start a Web browser and enter the IP address of the Content Server. You can use either http or https, with https recommended for administrative access.

- 2 When prompted for login, enter the username **administrator** and password **TANDBERG**



- 3 Go to [Conference Setup > Recording Alias Options](#). Edit the E.164 aliases and H323 IDs for the default Recording Aliases and save.

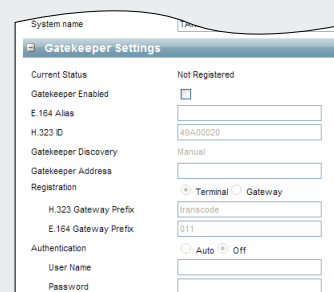


- 4 Go to the [Administrator Settings > Site Settings](#) to set the **System Name** for the Content Server.



**Note:** The System Name is used by TMS to identify the Content Server.

- 5 Set **Gatekeeper registration** to **Enabled** and set the **Gatekeeper IP address**. You can choose to register the Content Server as a Terminal or a Gateway. If you select **Gateway registration**, you will need to enter H.323 and E.164 Gateway prefixes.



- 6 Save the **Site Settings**. Stay on the page to verify if gatekeeper registration has been successful.

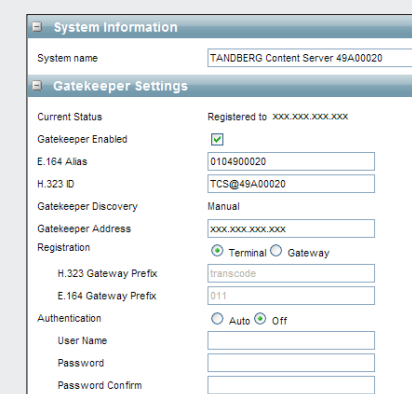


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# Basic H.323 Services Setup

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## About Basic H.323 Services

A quick basic setup of your TANDBERG Content Server includes:

1. Setting up H.323 services via the Content Server interface (described on the previous page).
2. Making a test call recording.
3. Changing the administrator password and setting up server date and time on the Windows Server (described on the next page).



If the Content Server is not registered to a gatekeeper, you can make a test recording by dialing the IP address of the Content Server from an endpoint.



To read more on Recording Aliases, see [Recording Aliases](#)

## Step 2 - Call Recording Test

- 1 If you have logged out, log back in to the Content Server web interface via <http://<ContentServerIPaddress>>.

- 2 Go to [Conference Setup](#) > [Create Conference](#).

- 3 Select a default recording alias, type the address of the endpoint you want to call and click on [Place Call](#). Alternatively, you can dial one of the recording aliases' E.164 alias or H.323 ID from your endpoint.

- 4 If the recording alias you have selected has a live stream output, you can watch the streaming call in [Live Conferences](#). Calls made with aliases which have no live streaming outputs will not be available for viewing until the call has finished and the recording has been transcoded.

- 5 You can end the call from the [Edit](#) link in [Live Conferences](#), or from the endpoint you dialed.

- 6 You can watch the on demand conference in [Recorded Conferences](#). Calls which were made with the default [On Demand](#) alias need to be transcoded before they can be watched. The progress of the transcoding process can be viewed in [Pending Conferences](#).

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## About Basic H.323 Services

A quick basic setup of your TANDBERG Content Server includes:

1. Setting up H.323 services via the Content Server interface (described two pages back).
2. Making a test call recording (described on the previous page).
3. Changing the administrator password and setting up server date and time on the Windows Server.



To read more on how to set the administrative properties and user configuration, see the [Administrator Settings](#) section.

## Step 3 -Web Server Setup

- 1 Once the initial setup has been completed, log in to the Web User Interface for Microsoft Windows Server administration, <https://<ContentServerIPAddress>:8098/>, using Internet Explorer and use the [Set Administrative Password](#) tool to change your administrative password.

You may wish to record your new administrative password in a safe location. Please note that you must not change the default administrator account name.

The screenshot shows the TANDBERG-09BBB8 Web User Interface. The top navigation bar includes links for Welcome, Status, Network, Disks, Users, Maintenance, and Help. Below this, there are links for Take a Tour, Set Server Name, and Set Administrator Password. The 'Set Administrator Password' tool is displayed, showing fields for User name (ADMINISTRATOR), Current password, New password, and Confirm new password.

- 2 Go to [Maintenance](#) > [Date/Time](#) to update Date and Time settings on the server.

Remember to restart the Content Server every time you change date, time and time zone information.

The screenshot shows the TANDBERG-09BBB8 Web User Interface with the 'Date and Time Settings' tool selected. The tool displays fields for Date (10/16/2008), Time (3:29:03 PM), and Time zone ((GMT) Greenwich Mean Time : Dublin, Edinburgh, Lisbon, London). There is a checkbox for 'Automatically adjust clock for daylight saving changes' which is checked. A note at the bottom states: 'Changes to the server's date and time do not affect the date and time on your computer.'

## Recommended Next Steps

Now that you have completed your installation and tested your Content Server, you need to go to [Recommended next steps in setting up your Content Server](#) for recommendations and best practice in administering the Content Server for your installation.

# TANDBERG Content Server

## TCS Administration

The Operation section contains important information about:

- Recommended Next Steps in Setting up Your Content Server
- Product Registration and Security Updates
- The LCD Panel

Please note that for security reasons, you should check the TANDBERG ftp site regularly for security updates and apply them to protect your Content Server system.

# Recommended Next Steps in Setting up Your Content Server

What	Why	How
Register your Content Server using the Registration Card	You need to register the Content Server if you would like to be contacted when updates to the TANDBERG Content Server become available.	Use the Registration Card or via the web at <a href="http://www.tandberg.com/register">www.tandberg.com/register</a>
Apply Security Updates	You should check the TANDBERG ftp site for new security update installers and apply them regularly to ensure that your Content Server is protected with the most up-to-date security patches released by Microsoft and tested for compatibility with the Content Server by TANDBERG.	Go to <a href="#">security updates</a> on the TANDBERG ftp site.
Set up your Authentication Method	Local is the default authentication option. It is recommended that you change authentication to LDAP or Domain mode once the Content Server is in production.	Go to the <a href="#">Authentication</a> section.
Add Users	Once you have selected an authentication mode, you need to setup your users or groups and assign them their correct privileges to use the Content Server. User roles on the Content Server include Users, Owners and Administrators.	Go to the <a href="#">User Management</a> section.
Set up Guest Access (if required)	Decide whether you want to enable Guest Access, which will allow non authenticated users to view conferences on the Content Server. Only conferences that have the "Allow access to all users" option, selected in the Conference Permissions will be able to be viewed by Guests. Any conference that has access restricted to Authenticated Users will not be available to Guests. RSS feeds functionality will only be available if Guest Access is enabled.	Go to the <a href="#">User Properties</a> section.
Configure your Media Servers	If you want to use an external streaming server or set up multicast streaming, you will need to configure a Media Server for Live and/or On Demand Streaming. If you want to automatically upload your media to Podcast Producer or iTunesU, you need to create a Podcast Producer or iTunesU distribution media server.	Go to the <a href="#">Media Servers</a> section.
Select your Default Media Servers	Make the Media Servers you have just created your system defaults. Default Media Servers will be used when Recording Templates are created.	Go to the <a href="#">System Defaults</a> section.
Configure Recording Templates	There are a number of default System Templates on the Content Server that you can use. Alternatively, you can edit an existing Template or create new ones using the Media Servers that you have created.	Go to the <a href="#">Templates</a> section.
Add/Change Categories	Conferences can be assigned a Category to assist users to find what they are looking for. For example, Marketing may be a Category that is used for all Conferences related to or created by Marketing. Users can filter all Conferences by selecting the Marketing Category.	Go to the <a href="#">Categories</a> section.
Review and configure Recording Aliases	Each Recording Alias has an H.323, E.164 and/or SIP number that can be dialed to record a conference. To set the default behaviour when a call comes in on a particular Recording Alias, you need to set the template and call configuration as well as edit permissions and metadata for that Alias.	Go to the <a href="#">Recording Alias Options</a> section.
Select the Recording Alias System Default	When the system E.164 alias, system name or content server IP address is called, the Default Recording Alias will be used.	Go to the <a href="#">System Defaults</a> section.
Configure TMS	TANDBERG Management Suite can be used to schedule one-off or recurrent conference recordings.	Using <a href="#">TMS to Schedule Calls</a> section.

# Product Registration, Security Updates and Security Certificate

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## Product Registration

You need to register the product if you would like to receive an email from TANDBERG Constant Care Services when updates to the TANDBERG Content Server become available.

You can register using the Registration Card provided with your Content Server or via the web at

[www.tandberg.com/register](http://www.tandberg.com/register).

You can also check the following ftp site for all available downloads:

[http://ftp.tandberg.com/pub/software/content\\_server/](http://ftp.tandberg.com/pub/software/content_server/)

## Security Updates

All relevant security updates for the TANDBERG Content Server are available from the following ftp site: [http://ftp.tandberg.com/pub/software/device\\_security/](http://ftp.tandberg.com/pub/software/device_security/).

IT IS IMPORTANT THAT YOU DOWNLOAD AND INSTALL THE MOST RECENT SECURITY UPDATE FOR EACH YEAR FROM THE TANDBERG FTP SITE BEFORE USING THIS PRODUCT. YOU SHOULD ALSO CHECK THIS SITE REGULARLY TO SEE IF NEW SECURITY UPDATES ARE AVAILABLE. ALL SECURITY UPDATES RELEVANT TO THE Content Server ARE CUMULATIVE THROUGHOUT THE CALENDAR YEAR.

## Security Certificate Management

The TANDBERG Content Server has implemented SSL (Secure Sockets Layer) protocol for sending user authentication information (username and password) in a secure way at user log in. The SSL implementation means that the Content Server website needs to establish its credentials with the user's browser through an electronic document known as a security certificate.

Each TANDBERG Content Server is shipped with a self signed certificate issued by TANDBERG, which is valid for a year. As TANDBERG is not a trusted Certificate Authority, when users try to log in to the Content Server, most browsers will display a message that the identity of the site could not be verified. Users may add the Content Server to the Trusted sites list in Internet Explorer or add an exception in Firefox to avoid getting error messages at log in.

Once the original Content Server certificate has expired, browsers will display another warning, in addition to any previous warning related to self-signed certificates that are installed. A new certificate request can be generated using the IIS certificate wizard. Once this request is generated, another self signed certificate may be created, using a third party tool, or this request can be forwarded to a certificate issuing authority.

TANDBERG recommends purchasing a security certificate from a certificate issuing authority that has a trusted relationship back to a root authority, such as VeriSign or Comodo. These credentials are most likely to be trusted by browsers, removing the need to add the Content Server to the list of trusted sites. This certificate needs to be generated against the Windows machine name or the DNS entry associated with the IP address that the TCS is using.

The security certificate must be installed for the TCS default website. You may also install it for the Windows Media Administration website and the Windows Server Administration website to avoid getting security warnings when administrators log in to those sites. Do NOT remove the expired certificate, as this will result in the HTTPS service being unavailable, preventing any logon attempts.

## About Remote Desktop

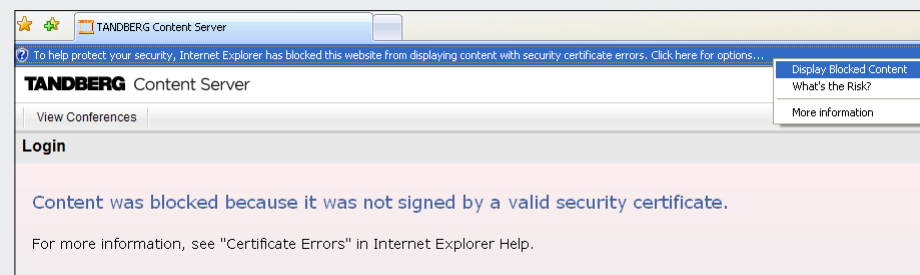
Content Server software upgrades and security updates need to be installed using Remote Desktop access.

Remote Desktop access is also used for:

- Backing up the Content Server. See also the [Backing Up and Restoring](#) section.
- Changing the default media storage location. See also the [Media Storage Location](#) section.
- Installing the Security Certificate. See the [Security Management](#) section.

For more information about Remote Desktop access, see [Appendix 5: Using Remote Desktop](#).

Example of an invalid security certificate warning in Internet Explorer:



# LCD Panel: System Status, Shutting Down and Restarting

## System Status

The LCD panel display indicates the current status of the Content Server.

<IP Address>  
ONLINE

**Online.** The Content Server is ready to accept calls and transcode outputs. No calls or transcoding jobs are currently in progress.

**1-5 calls.** Calls are in progress on the Content Server.

**Transcoding.** A transcoding job is in progress on the Content Server.

**1-5 calls (cnfg).** Calls are in progress and the Content Server is in Reloading Configurations mode. In this mode, the Content Server will not accept new calls.

**Idle.** The Content Server is in Idle mode because an administrator is running the TCS Wizard. In Idle mode, the Content Server will not accept new calls or process new transcoding jobs. The LCD panel will also display '1-5 calls (idle)' or 'trans (idle)' if there is a call or a transcoding process in progress when the Wizard starts.

**Error.** The Content Server is out of disk space or has lost connection to the NAS.

**No Network.** The Content Server has no connection to the network.



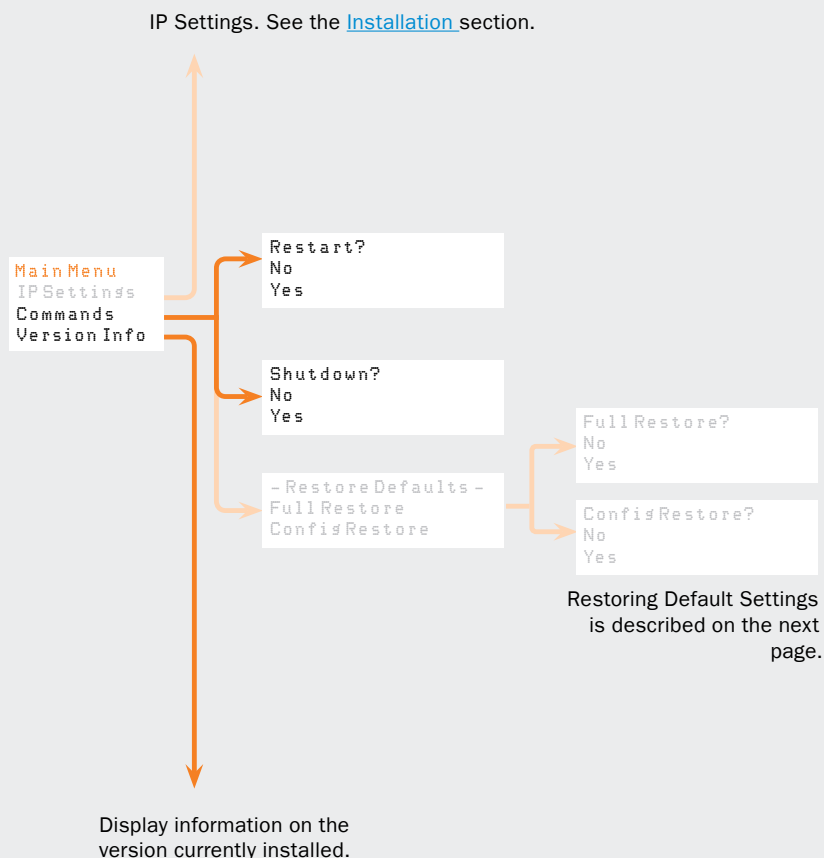
System status is also displayed on the Server Overview page, under the Administrator Settings menu.

## Do not Shutdown or Restart the Content Server While Calls Are In Progress!



We do not recommend shutting down or restarting the Content Server while calls are in progress. If the Content Server is in a call and the server is restarted or shut down, calls in progress will fail and will not be recorded.

## Command Menu Structure



## Restarting the Content Server

1. Press **Enter** to display the Main Menu screen
2. From the Main Menu screen, use the **Up** or **Down** arrow to select **Commands**
3. Press **Enter** to confirm your selection
4. From the Commands menu, use the **Up** or **Down** arrow to select **Restart** and press **Enter**
5. You will be asked to confirm this action on the following screen. At the **Restart?** prompt, use the **Up** or **Down** arrow to select **Yes** and press **Enter** to confirm.

## Shutting Down the Content Server

1. Press **Enter** to display the Main Menu screen
2. From the Main Menu screen, use the **Up** or **Down** arrow to select **Commands**
3. Press **Enter** to confirm your selection
4. From the Commands menu, use the **Up** or **Down** arrow to select **Shutdown** and press **Enter**
5. You will be asked to confirm this action on the following screen. At the **Shutdown?** prompt, use the **Up** or **Down** arrow to select **Yes** and press **Enter** to confirm.
6. **IMPORTANT**—WAIT UNTIL THE LCD PANEL DISPLAYS 'POWER OFF' BEFORE SWITCHING THE POWER BUTTON OFF.



# LCD Panel: Restoring to Default Settings

## About Restoring to Default Settings

The administrator can restore the Content Server to default settings partially or fully via the LCD panel.

A partial restore to default settings—**Config Restore**—restores the default configuration files and templates, but does NOT affect the content stored on the server.

A full restore to default settings—**Full Restore**—removes content and deletes all media files in addition to restoring the factory configuration files and templates.



Restoring to defaults command in v.3.x will restore the Content Server to v.3.x defaults, but it will also remove any configurations specific to v.2.x, if the Content Server has been upgraded to v3.0 from v2.x!



Restoring to defaults—both Config Restore and Full Restore—**must not be interrupted!** Logs are available in E:\logs\SetupUtility.directory.

## Using the Front Panel Keys

- Used to enter the edit mode and confirm selection or entry.
  - Used to return to the previous menu screen or exit the edit mode without saving the latest entry.
  - Used to select items in the menu, move between values in a numerical address and modify numerical values.
- For an example of this, turn to [IP Address Setting Configuration](#) in the Installation section.

## Restoring to Default Settings

1 Press **Enter** to display the Main Menu screen.

2 From the Main Menu screen, use the **Up** or **Down** arrow to select **Commands**.

3 Press **Enter** to confirm your selection.

4 From the Commands menu, use the **Up** or **Down** arrow to select **Restore Defaults** and press **Enter**.

5 From the Restore Defaults menu, use the **Up** or **Down** arrow to select **Full Restore** or **Config Restore** and press **Enter**.

If you are performing a full restore, you will be asked to confirm this action on the following screen. At the **Full Restore?** prompt, use the **Up** or **Down** arrow to select **Yes** and press **Enter** to confirm.

If you are performing a partial restore, you will be asked to confirm this action on the following screen. At the **Config Restore?** prompt, use the **Up** or **Down** arrow to select **Yes** and press **Enter** to confirm.

## What Does Config Restore Do?

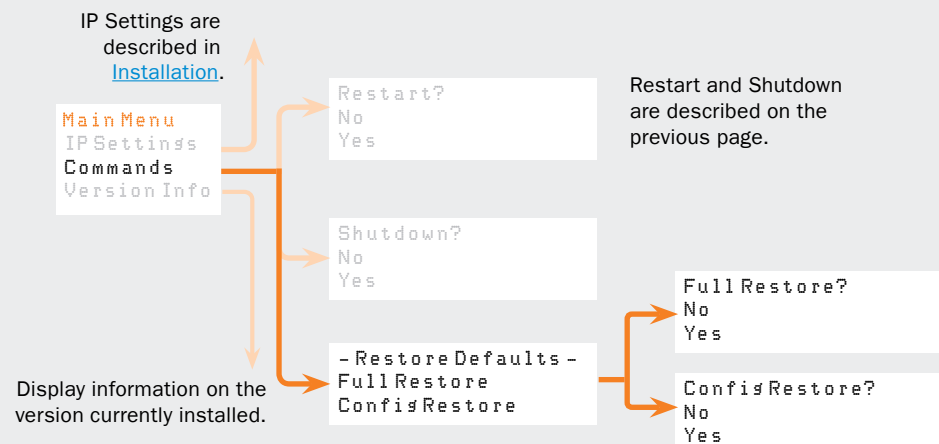
Deletes all user-created recording aliases, call configuration files, templates and unused media servers and restores v.3.x defaults.

## What Does Full Restore Do?

Deletes all user-created recording aliases, media servers, call configuration files, categories and recording templates and restores them to v.3.x defaults.

- Deletes all conferences and media files.
- Deletes all server logs.
- If data location has been changed to an external storage location (NAS), a full restore will change the default storage location back to the Content Server. Media files on the NAS will not be deleted.

## Command Menu Structure



# TANDBERG Content Server

## Backing Up and Restoring the Content Server

This section describes the backup and restore procedures for the TANDBERG Content Server. Please note that scheduled backup functionality is only available in version 2.3 or higher. This document covers version 3.x of the TANDBERG Content Server Administrator Guide.

# Backing Up Your Content Server

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## About Backing up

The backup procedure described here will back up your application, database, media and all settings.

This full backup differs from the partial backup tool used in S2.0 which only backed up the database.

This procedure allows you to make one-off as well as scheduled backups. We recommend regular backups, and making a special one-off backup before upgrading your Content Server.

It is very important to follow the restore procedure as described here, otherwise future upgrades may not work.

## Before You Start

Before attempting backup, check in **Add/Remove** programs that you have Windows Server 2003 Service Pack installed. Please ensure that Service Pack 2 is installed on the Content Server before proceeding with backup.

Visit [http://www.tandberg.com/support/tandberg\\_device\\_security.jsp](http://www.tandberg.com/support/tandberg_device_security.jsp) for instructions on how to install Microsoft Windows Server 2003 Service Pack 2 on the TANDBERG Content Server.

You will need a USB Hard drive with enough space for all files to be backed up. Check the total size of the files to be backed up on your Content Server (in My Computer). You can also back up to a network location.



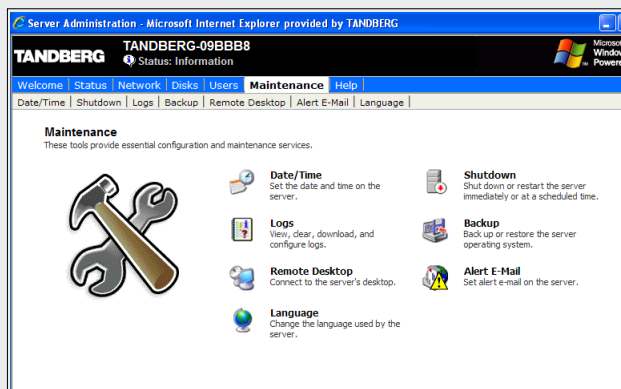
## The Backup Procedure

**1** If you are not backing up to a network location, connect a USB hard drive to a USB port on the Content Server. If the USB device does not appear in **My Computer**, go to **Computer Management** and assign a drive letter which does not conflict with the existing drives (eg. F).

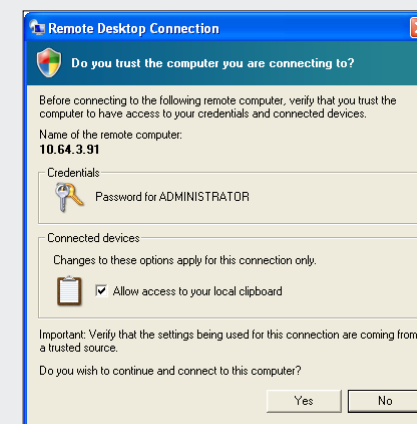
**2** Login to the web interface using Internet Explorer and select **Windows Server** from the **Administrator Settings** menu.

If you are not using Internet Explorer, you can also open the Backup Wizard from a Remote Desktop session. Go to **Start > All Programs > Accessories > System Tools > Backup**

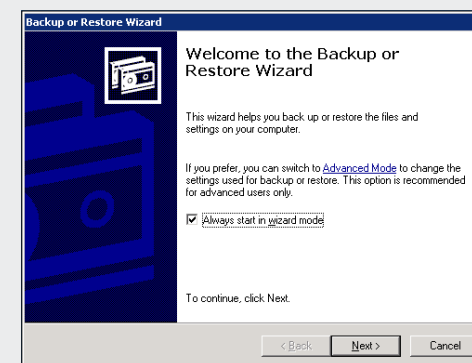
**3** Click on the **Maintenance** tab, then select the **Backup** link.



**4** Authenticate to open a **Remote Desktop** connection. If your Internet Explorer 7 settings prevent you from running Active X scripts, you may need to add the Content Server to your **Trusted Sites** list in IE.



**5** Start the **Backup and Restore Wizard**.



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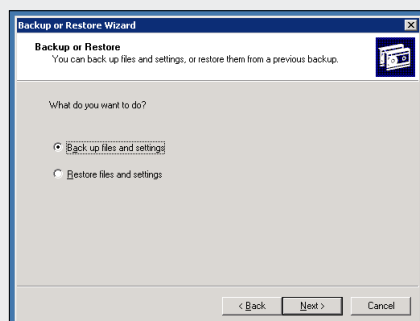
Conference Setup

View Conferences

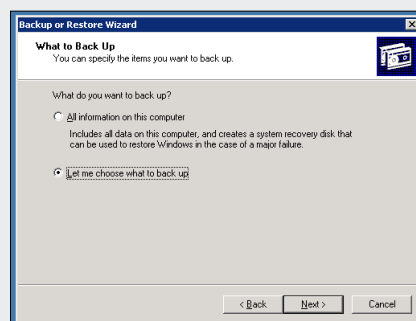
Appendices

## The Backup Procedure *cont.*

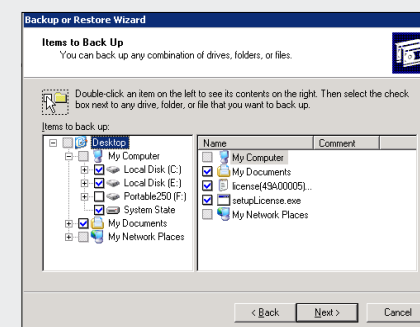
### 6 Select **Back up files and settings**.



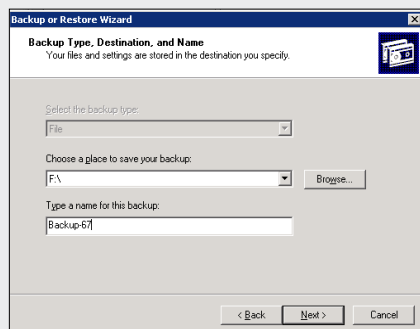
### 7 From the **What to Back up** screen, select **Let me choose what to back up**.



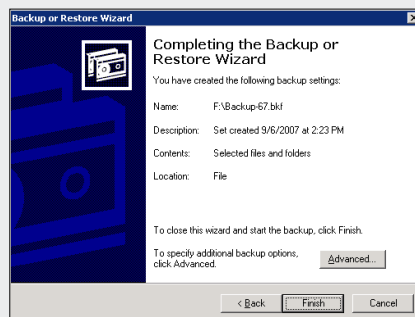
### 8 From the **Items to back up** screen, select the check boxes next to: **Local Disk [C:], Local Disk [E:] and System State**



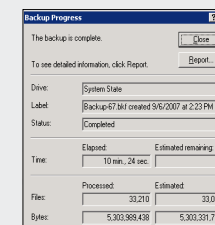
### 9 From the **Backup Type, Destination and Name** screen: Browse to the network location or USB Hard Drive you want to use for your backup. Type a name for your backup.



### 10 The below screen, **Completing the Backup or Restore Wizard**, will summarize your backup information. Click on **Finish** to start your backup.



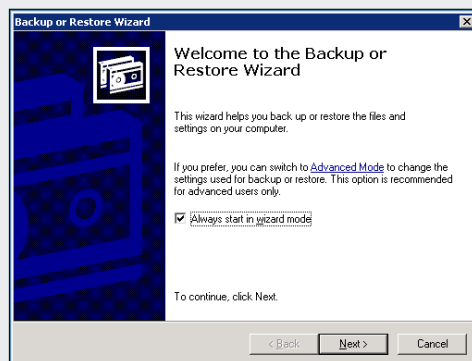
### 11 The backup process takes approximately 10 minutes per 5GB of data. Backup progress is reported on screen and a detailed report is provided at the end of the process.



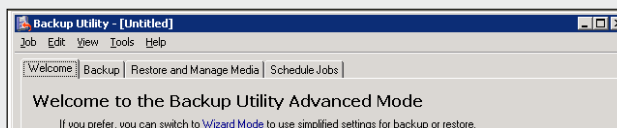
Your backup is now complete!

## The Scheduling Backup Procedure

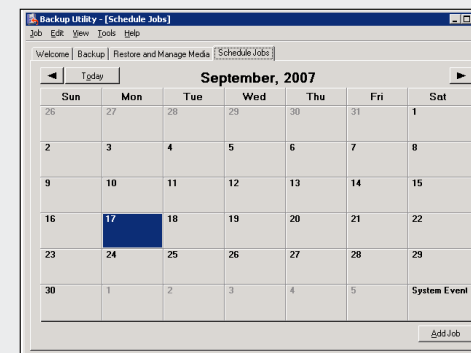
- 1 Open the **Backup and Restore Wizard** as described on the previous pages. Select **Advanced Mode**.



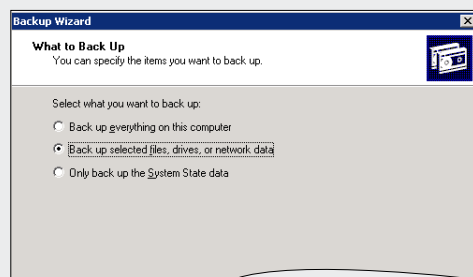
- 2 Click on the **Schedule Jobs** tab.



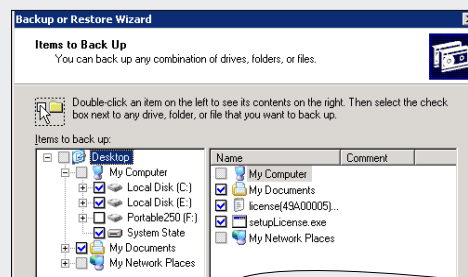
- 3 Click on the **Add Job** button.



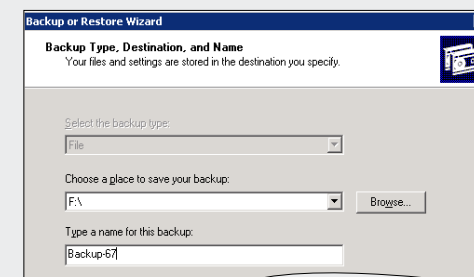
- 4 This will open the **Backup Wizard**. From the **What to Back up** screen, select **Back up selected files, drive, or network data**. Click **Next**.



- 5 From the **Items to back up** screen, select the check boxes next to: Local Disk [C:], Local Disk [E:] and System State.



- 6 From the **Backup Type, Destination and Name** screen: Browse to the network location or USB Hard Drive you want to use for your backup. Type a name for your backup.



more...

## The Scheduling Backup Procedure cont.

- 7 From the **Type of Backup** screen, select the type of backup from the following options:

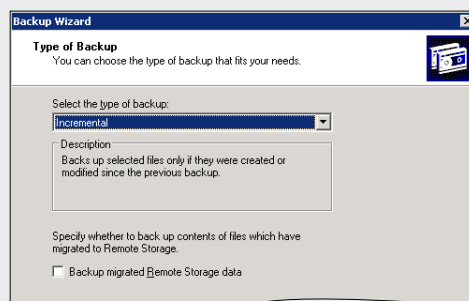
**Normal.** Backs up selected files and marks each file as backed up

**Copy.** Backs up selected files but does not mark any as backed up

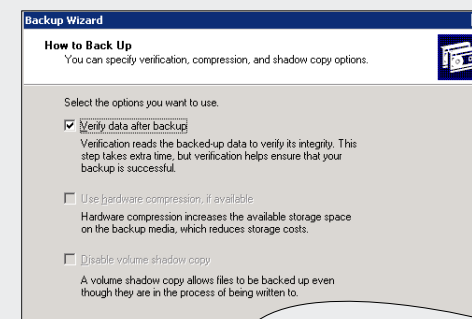
**Incremental.** Backs up selected files only if they were created or modified since the previous backup

**Differential.** Backs up selected files only if they were created or modified since the previous backup but does not mark them as backed up

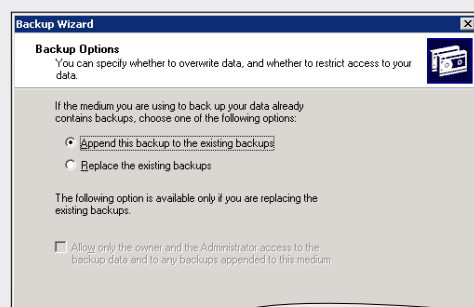
**Daily.** Backs up only files that were created or modified today.



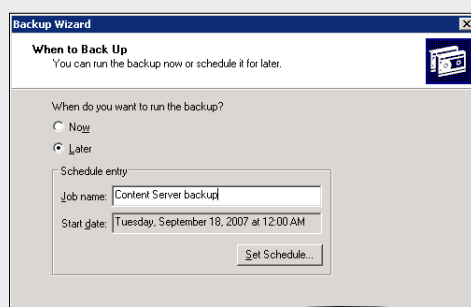
- 8 From the **How to Backup** screen, select **Verify data after backup**.



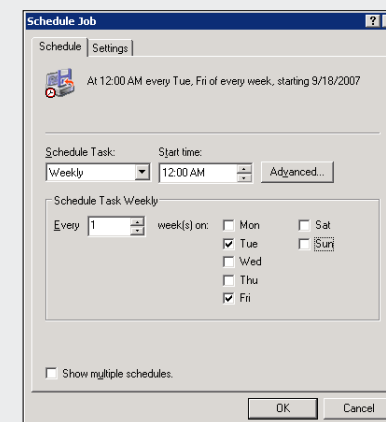
- 9 From the **Backup Options** screen, select **Append this backup to the existing backups**.



- 10 From the **When to Backup** screen, select **Later** and click on the **Set Schedule** button to make your scheduling selections.



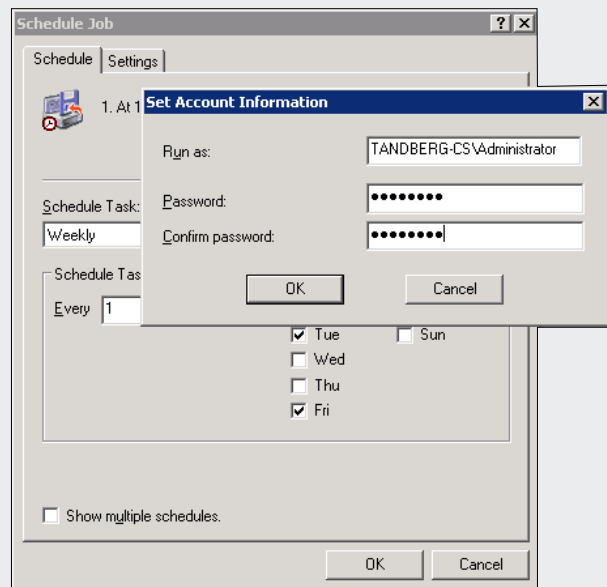
Example settings are shown in this screenshot.



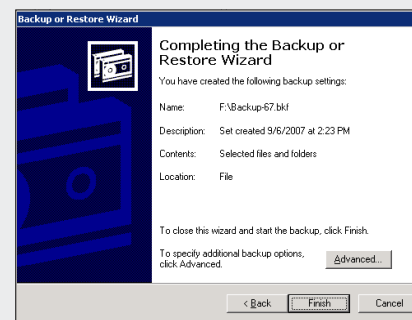
more...

## The Scheduling Backup Procedure cont.

- 11 After clicking **OK**, you will be prompted twice to supply the password for the account that the backup will run under.



- 12 The below screen, **Completing the Backup or Restore Wizard**, will summarize your backup information. Click on **Finish** to schedule the backup





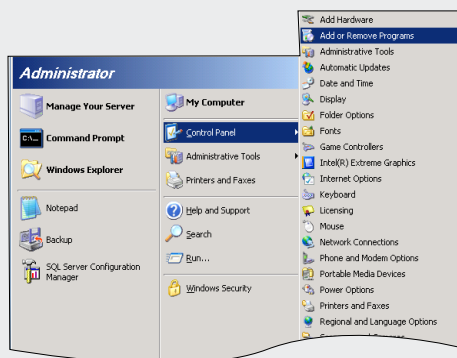
# Restoring your Content Server from Backup

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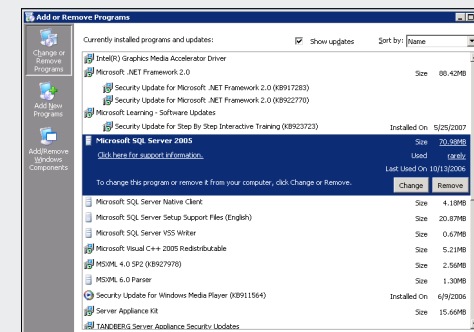
## The Restoring Procedure

- 1 End any calls in progress and open **Remote Desktop** access to your Content Server.

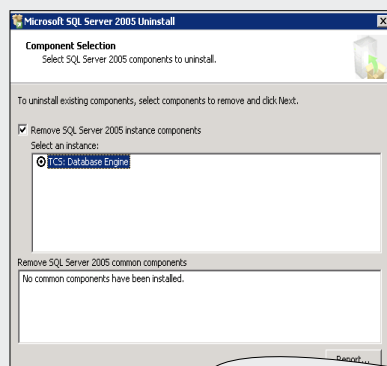
- 2 Uninstall the TANDBERG Content Server. From **Start > Control Panel**, open **Add or Remove Programs**. Select **TANDBERG Content Server** and click on **Change**. At the following screen, select the **Remove** option.



- 3 Uninstall the Microsoft SQL Server 2005. Select **Microsoft SQL Server 2005** and click on **Remove**.



- 4 In the following **Component Selection** screen, select **TCS database Engine** and click on **Next**.



- 5 From the **Add/Remove Programs**, uninstall **Microsoft SQL Server VSSWriter** and **Microsoft SQL Server Setup Support Files**.

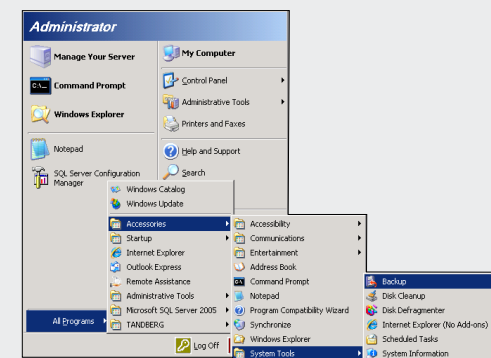
Browse to **C:\Windows\Security**

Look for files called **edb\*.log**, there should be **edb.log** and at least one or two others maybe more (often called **edbtmp.log** or **edb0000\*.log**).

**DO NOT delete edb.log**, but delete the other one or two files.

Not removing these files could result in future upgrades failing following the restore.

- 6 Go to **Start > All Programs > Accessories > System Tools > Backup**.



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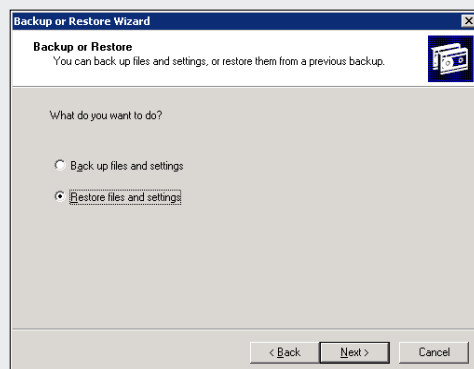
Appendices

# Restoring your Content Server from Backup... cont.

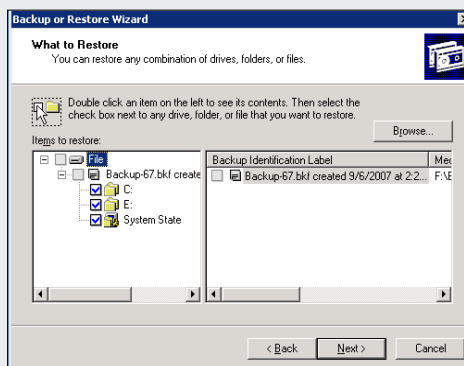
TANDBERG CONTENT SERVER  
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## The Restoring Procedure cont...

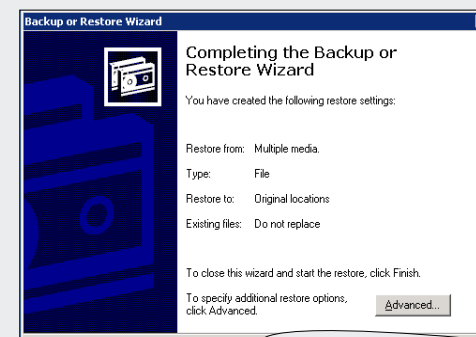
- 7 Start the **Backup Wizard**. Select **Restore files and settings**.



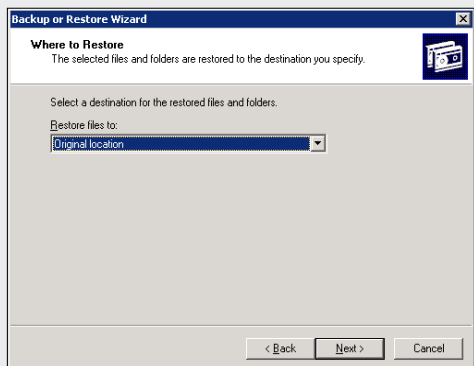
- 8 From the **What to restore** screen, select the check boxes next to: **Local Disk [C:]**, **Local Disk [E:]**, and **System State**



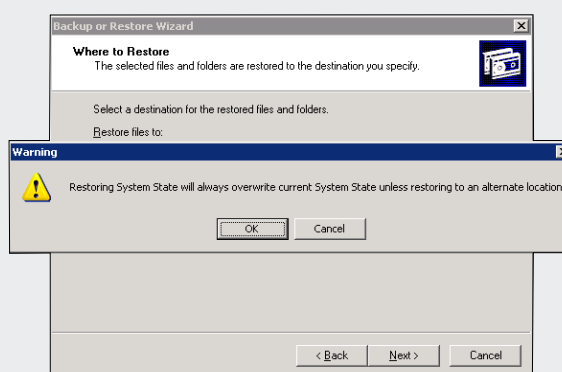
- 9 Click on **Advanced...** from the following screen, **Completing the Backup or Restore Wizard**.



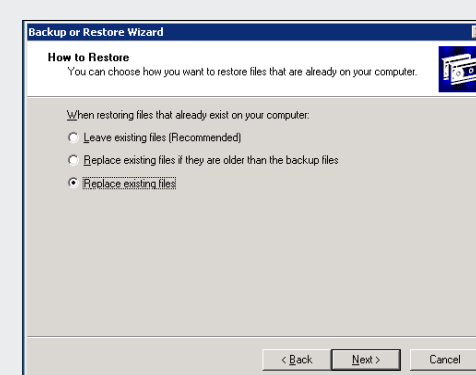
- 10 From **Where to restore** screen, leave the default setting—**Original location**.



- 11 Acknowledge the following warning about System State restore.



- 12 From the **How to restore** screen, select **Replace existing files**.



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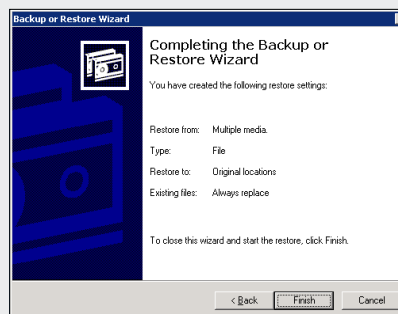
# Restoring your Content Server from Backup... cont.

## The Restoring Procedure cont...

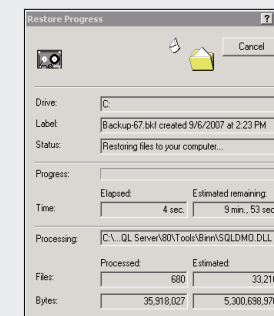
- 13 Leave the default options selected on the **Advanced Restore Options** screen.



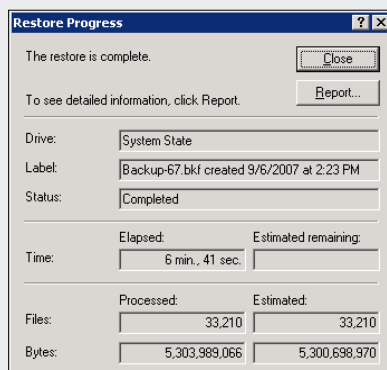
- 14 Click on Finish on the following screen, **Completing the Backup or Restore Wizard** to start the restore process.



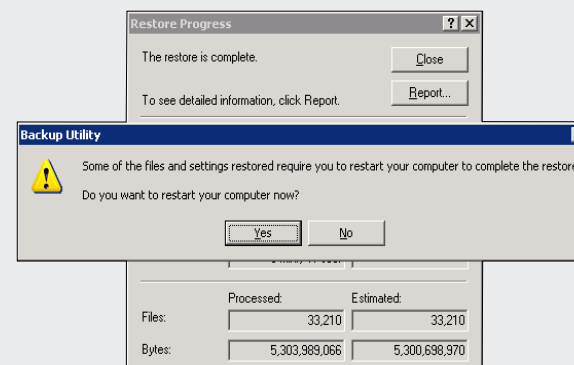
- 15 The progress of the restore is shown on screen.



- 16 Once the restore has completed, more detailed information can be obtained by clicking on the **Report** button.



- 17 YOU MUST RESTART THE COMPUTER AFTER THE RESTORE PROCESS.



# TANDBERG Content Server

## Administrator Settings

This section describes all the options that appear under the Administrator Settings menu of the web interface.

These options allow you to configure the various settings and functions of the Content Server.

# Accessing Administrator Settings

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## About Administrator Settings

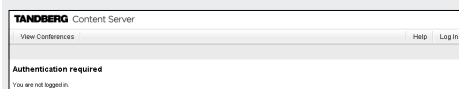
The administrator needs to review the administrator settings and configure the settings based on the requirements of the installation site.

Configuration settings can be made via the **Administrator Settings** menu.

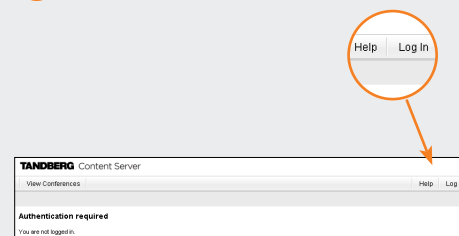
Factory default user name for the local administrator account is **administrator** and factory default password is **TANDBERG**. It is strongly recommended that you change the administrative password at setup time and before the Content Server is used for production.

## Logging In to View the Administrator Options

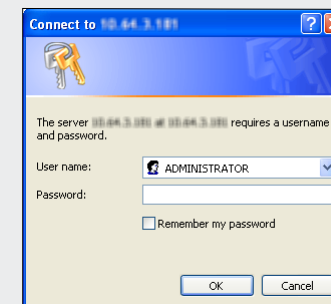
- 1 Use a web browser to log in to the Content Server interface via `http` or `https://<ContentServerIPAddress>`.



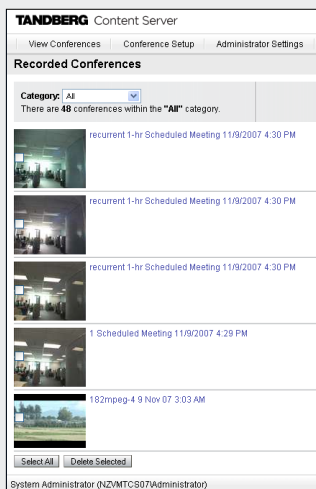
- 2 Click on **Login**.



- 3 Enter your administrator user name and password.



- 4 Once successfully logged in, the screen will display your display name and user name at the bottom left of the screen, with menu items now available according to your login privileges.



- 5 Click on **Administrator Settings** to display the options available. These are described on the following pages.

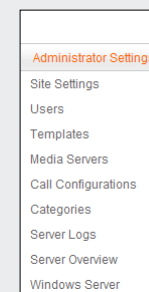


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## About Site Settings

Administrators need to review and configure **Site Settings** options before putting the system into production.

**Site Settings** menu items include:

- System Information
- Gatekeeper Settings
- Advanced H.323 Settings
- SIP Settings
- Authentication
- API
- User Properties
- System Defaults

The Site Settings page is automatically refreshed every 10 seconds.

## Applying Site Settings

All changes made in the **Site Settings** page need to be confirmed by clicking the **Save** button at the top or bottom of the page.

The Site Settings page is available for editing even if the Content Server is in call. Most settings from the Site Settings page can be changed and applied while the Content Server is in call.

The exceptions are **Gatekeeper settings**, **Advanced H323 settings** and **SIP settings**. Any changes made in those sections will not be applied until all calls on the Content Server have finished. If calls are in progress when the Save Settings button was clicked, the Content Server will automatically enter **Configuration Reload mode**. In this mode, the Content Server will not accept incoming calls or make outgoing calls (the Create Conference interface will display "There are no resources available to make a call, please try again later"). When the call or calls currently in progress are completed, new settings will be applied and the Content Server will be able to receive and make calls.

The administrator may also choose to override the Configuration Reload mode and apply changes immediately by clicking on the End All Calls button in Site Settings, which will terminate calls on the Content Server.

## The Site Settings options



See [System Information](#) section.

See [Gatekeeper Settings](#) section.

See [Advanced H.323 Settings](#) section.

See [SIP Settings](#) section.



The **+** indicates that this topic is expandable in the usual way. Once expanded, the sign changes to **-** to show that the topic can be collapsed again.

See [Authentication](#) section.

See [API](#) section.

See [User Properties](#) section.

See [System Defaults](#) section.

## System Information

**System Name.** Enter the name for the Content Server. The System Name is used in the TANDBERG Management Suite to identify added Content Servers.

**Frontend Address.** Enter the IP address or DNS name of the Content Server. The Frontend Address, if specified, is used for the Share Conference link displayed on the Recorded Conferences page and the conference URL displayed on the Edit Conference page.

If the Frontend Address is not specified, links to conferences will be displayed using the address that the user typed in the browser URL to log in to the Content Server.

**Site Settings**

Save Return

**System Information**

System Name	MyExample Content Server
Frontend Address	MyExampleTCS.net



## Gatekeeper Settings

**Current Status.** Displays the status of Content Server registration with the gatekeeper (registered or not registered).

**Gatekeeper Enabled.** Choose **Enabled** to register with the gatekeeper.

**E.164 Alias.** Other systems can call the Content Server using the E.164 Alias, if the Content Server is registered to the gatekeeper. The recording alias specified in the **Default Recording Aliases** will be used for the call.

**H.323 ID.** Other systems can call the Content Server using the H.323 ID, if the Content Server is registered to the gatekeeper. The recording alias specified in the **Default Recording Aliases** will be used for the call.

**Gatekeeper Address.** This gatekeeper IP-address will be used to register the Content Server.

**Registration.** Choose to register the Content Server as a **Terminal** or as a **Gateway**.

**H.323 Gateway Prefix.** Alias prefix if registered as a gateway.

**E.164 Gateway Prefix.** Alias prefix if registered as a gateway.

The screenshot shows the 'Gatekeeper Settings' window with the following fields and values:

- Current Status:** Registered
- Gatekeeper Enabled:** ☒
- E.164 Alias:** 1029088
- H.323 ID:** TANDBERG-2AB501
- Gatekeeper Discovery:** Manual
- Gatekeeper Address:** 192.168.1.100
- Registration:** ☒ Terminal ☐ Gateway
- H.323 Gateway Prefix:** (empty)
- E.164 Gateway Prefix:** (empty)
- Authentication:** ☐ Auto ☒ Off
- User Name:** (empty)
- Password:** (empty)
- Password Confirm:** (empty)



Changes to any fields in the **Gatekeeper Settings** section will not take effect on a given Content Server until all its calls have ended.

**Gatekeeper Discovery** Gatekeeper discovery is always set to manual on the Content Server. Manual gatekeeper discovery means that you will register with one specific gatekeeper, identified by its IP Address.

**Authentication.** By default, authentication is set to Off. If the gatekeeper requires that systems must authenticate with it before they are allowed to register, then change to Auto and supply the User name and Password that will be used by the Content Server.

**User name.** Enter the user name to authenticate toward the gatekeeper.

**Password.** Enter the password to authenticate toward the gatekeeper.

**Password confirm.** Re-enter the password.

## The Advanced H.323 Settings

**Use Static Ports** is disabled by default. This means that the system will dynamically allocate which ports to use when opening a TCP/UDP connection.

Static ports can be enabled by selecting the checkbox and specifying the required range of ports.

**Port Range.** 3230 to 3270 is the standard firewall port range. It needs to be configured according to your local firewall settings.

**NAT.** Network Address Translation is used when the Server is connected to a router with NAT support. The default setting for NAT is **Off**.

If NAT is **On**, the system will signal the configured NAT address in place of its own IP address within Q.931 and H.245.

If NAT is set to **Auto**, the system will try to determine whether the NAT address or the real IP address should be used for signaling. This is done to make it possible to make calls to endpoints on the LAN as well as WAN.



Changes to any fields in this section require you to Restart Service.

Advanced H.323 Settings

Changes to any of these fields require you to restart the TANDBERG Content Engine service.

Use Static Ports

☐

Port Range

3230 to 3270

NAT

☐ On ☒ Off ☐ Auto

NAT Address

0.0.0.0



Changes to any fields in the **Advanced H.323 Settings** section will not take effect on a given Content Server until all its calls have ended.

**NAT Address.** The NAT address must be the global, external address to a router with NAT support. In the router, the following ports must be routed to the system's IP address:

- Port 1720
- The port range specified by the **Port Range** field, eg. 3230 to 3270.

Please contact your TANDBERG representative or authorized reseller for more information.

## SIP Settings

**Status.** Displays the status of Content Server's registration with the SIP registrar.

**Display name.** Enter the Content Server's SIP display name.

**Server Discovery** is Manual. The IP of the Server must be entered below.

**Server Type.** Select the type of SIP registrar. The default setting is **Auto**, which supports registering to standard SIP servers like OpenSer.

**User name.** Enter the user name to authenticate toward the SIP server.

**Password.** Enter the password to authenticate toward the SIP server.

**Password confirm.** Re-enter the password.

**Status:** Displays the status of Content Server registration with the SIP registrar.

**Registrations:** Displays all Aliases that are registered to the SIP registrar.

The clickable link **View all SIP registrations** link to the **SIP Alias Registration** screen.

**SIP enabled.** Select to enable registration with a SIP registrar.

**SIP Address (URI).** Other systems can call the Content Server using the SIP Address or URI (Uniform Resource Identifier) if the Content Server is registered to a SIP registrar. The recording alias specified in the Default Recording Aliases will be used for the call.

**Server Address.** Enter the IP address or a fully qualified domain name of the SIP registrar.

**Transport.** Choose the transport protocol for SIP. The default transport method is TCP (Transmission Control Protocol). UDP (User Datagram Protocol) can also be used.



Changes to any fields in the **SIP Settings** section will not take effect on the Content Server until all its calls have ended.

## About Authentication

This section allows you to configure authentication modes for the Content Server. Authentication determines how users log in to the Content Server and the username and password that they must use. For more information, see also the [Prompting Users to Log in](#) section.

There are three modes of authentication supported by the Content Server:

- Local
- LDAP
- Domain

These are each explained in the section that follows.

Administrators and Owners always need to authenticate. Users wanting to view conferences can log in, or they can be given guest access to view some or all conferences without logging in. For more information on configuring guest access, see the [User Properties](#) section.

## Authentication Modes

### Local Authentication

In local authentication mode, only users with valid local accounts who have been added through the [User Management](#) page will be able to log in. Local authentication can be used if there are not a lot of users using the Content Server, since every account has to be manually set up through the Windows Server administration menu.



Both LDAP and Domain authentication methods require the details of a Microsoft Active Directory Server to be entered in the Authentication section. At this time, only Microsoft Active Directory Server is supported by the TANDBERG Content Server.

Clicking on the [Save](#) button (see [Site Settings](#)) will perform a check of the LDAP server settings as the Content Server attempts to bind to the LDAP server. Changes to Site Settings will not be saved if the LDAP settings entered are incorrect.

### Domain Authentication

Domain authentication can only be used if the Content Server has been added to a domain. If you add the Content Server to an existing domain, you need to define a separate security policy for the Content Server, otherwise the existing security policies may prevent the server from functioning correctly. Please contact your authorized TANDBERG reseller or partner for details of the recommended security policy settings.

Under Domain authentication, users with domain accounts and local users are able to log in. The local administrator account can be used to administer the server, or some domain users can be given administrative privileges.

### LDAP Authentication

LDAP authentication does not require the Content Server to be added to a domain.

Before changing authentication from local to LDAP, the local administrator must add at least one LDAP user with administrative privileges to the Content Server. To do this, go to User Management > Add Users and enter at least one valid username in the Add Administrators section.

Under LDAP authentication local users cannot log in using the standard login method. However, the local administrator can log in by adding the following string: [#page:login&rescue:true](#) to the end of the Content Server URL in the browser.

Example: The URL will look like this:

[http://<ContentServerIpAddress>/tcs/#page:login&rescue:true](#)

Hit the Enter key on your keyboard and log in with the local administrator account in the resulting pop-up window.

While it is possible for the local administrator to login using this method, it is more convenient to give an LDAP user account administrative privileges.

## Authentication Settings

**Authentication.** Choose the authentication method for the Content Server.

**Local.** If you select local authentication, only users with valid local accounts who have been added through the [User Management](#) page will be able to log in. Local groups are not supported.

**Domain.** If you select domain authentication, the Content Server must be added to the domain, and details of the LDAP server used for authentication must be filled out in the fields below.

**LDAP.** If you select LDAP authentication, details of the LDAP server used for authentication must be filled out in the fields below.

**Add LDAP Server.** Allows you to add up to four additional servers that the Content Server will look up to authenticate users.

This button is only active if you have selected Domain or LDAP as the authentication mode. In Local authentication, this button is greyed out.

**Authentication**

Authentication ☐ Local ☐ Domain ☒ LDAP

[Add LDAP Server](#)

**LDAP Server**

## LDAP Server Settings

**Server address.** Enter the DNS name or IP address of your LDAP server. Only Microsoft Active Directory Server is supported for 3.x and 2.x versions of the Content Server.

**Port.** Port 389 is the default port for most Domain Controllers. Global Catalog Servers may use port 389 or 3268.

**Base DN.** This is the search base which the Content Server uses to search for user records. The Content Server will search the object specified by the Base DN (Distinguished Name) and any objects beneath it.

The Base DN is a unique name for this container. It typically consists of OU, CN, and DC components.

### Base DN examples:

OU=employees,DC=company,DC=com

OU=marketing,OU=employees,DC=company,DC=com

In the examples above, OU 'marketing' is contained within the OU 'employees', so OU=employees,DC=company,DC=com will identify all employees of the company including the Marketing department, and OU=marketing,OU=employees,DC=company,DC=com will identify users from the Marketing department only.

**Authentication**

Authentication: ☐ Local ☒ Domain ☐ LDAP

**LDAP Server**

Server Address:  e.g. ldap.company.com

Port:  e.g. 389 or 3268

Base DN:  e.g. OU=staff, DC=company, DC=com

User DN:  e.g. CN=username, OU=staff, DC=company, DC=com

Password:

Password Confirm:

**User DN.** This is the LDAP identifier of the account in your domain which the Content Server will use to identify the user who is trying to log in. This account must have read membership privileges, that is, privileges to retrieve users' 'memberOf' attributes from Active Directory using LDAP. You can use an existing account or create a new special account with those privileges. This account does not need to be inside the search tree specified in Base DN.

The User DN (Distinguished name) is a unique name for this account. It consists of:

- CN (Common Name) of the special account
- OU (Organizational Unit)
- DC (Domain Object Class)

### User DN examples:

CN=user\_account,OU=employees,DC=company,DC=com

CN=user\_account,OU=marketing,DC=company,DC=com

Please note that DNs can have many more than four parts.

**Password.** Enter the password for the account identified above.

**Confirm Password.** Enter the password again to verify that it was entered correctly.

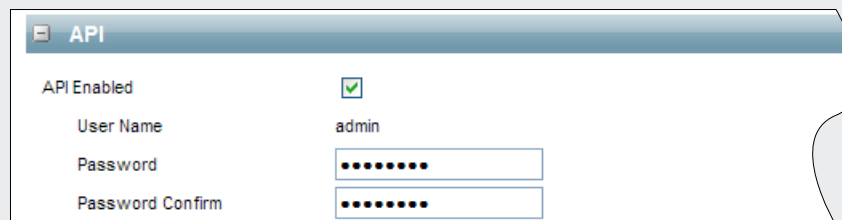
## API

The TANDBERG Content Server includes an Application Programmer Interface (API) which has been designed to provide mechanisms for external systems and services to get information from, and add information to the TANDBERG Content Server. The External Management API has been designed for integration with the TANDBERG Management Suite (TMS) but may also be of use with other management systems.

The API is enabled by default and must stay enabled in the following cases:

- If integration with TMS is required.
- If the API is used for customized integration with other systems. Refer to the TANDBERG Content Server API Documentation for details of available API calls.

If neither of the cases above applies, the API can be disabled.



API	
API Enabled	<input checked="" type="checkbox"/>
User Name	admin
Password	.....
Password Confirm	.....



Refer to the TANDBERG Content Server API Documentation D1398003, for details of available API calls.



The default API password at install is **TANDBERG**. It is strongly recommended that you change this password if you want the API to remain enabled. If you clear the password and the password field is empty, API clients will not receive an authentication challenge.



## User Properties

Select the **Allow Guest Access** checkbox to enable unauthenticated access to the Content Server for guests.

When the **Allow Guest Access** option is checked:

- Users do not have to authenticate to view conferences. Guest users can view all conferences that have **Allow access to all users** checkbox selected in **Conference permissions**.
- The RSS feeds icon is displayed on the Recorded Conferences page for all users. Content which allows access to all users and which is not password-protected can be viewed from an RSS reader.

### User Properties

Allow Guest Access ☐

## System Defaults

**Default Recording Alias.** If the system E.164 alias, system name or content server IP address is called from an endpoint, the **Recording Alias** specified here will be used for recording and/or streaming the call.

The **Recording Alias** determines:

- The call settings, based on the call configuration specified in the alias.
- The outputs, based on the recording template specified in the alias.
- Access to the live and recorded conference.
- Conference password (optional).
- All conference metadata, such as the conference name, description, speaker, location, copyright and category specified in the Alias will be automatically applied to the conference and can be edited before the call is placed and also after the call has finished.

For more information on this – see [Recording Aliases](#).

	Live	On Demand
Windows Media	Local Windows Media Streaming Server	Local Windows Media Streaming Server
MPEG4	-- No server configured --	Local IIS Web Server
Real Media	-- No server configured --	Local IIS Web Server

**Default Media Servers.** Servers specified in this section will be used by default in new templates.

- **Live Windows Media.** The Local Windows Media Streaming Server is used by default. An external streaming server can be configured in [Media Servers](#) and then selected as a default media server for streaming Windows Media live.
- **Live MPEG4.** By default, it is not possible to stream MPEG4 live off the content server. An external media server such as Darwin or QuickTime streaming server can be configured in [Media Servers](#) and then selected as a default media server for streaming MPEG4 live.
- **Live Real Media.** By default, it is not possible to stream Real Media live off the content server. An external media server such as a Helix streaming server can be configured in [Media Servers](#) and then selected as a default media server for streaming Real Media live.
- **On Demand Windows Media.** The Local Windows Media Streaming Server is used by default. An external streaming server can be configured in [Media Servers](#) and then selected as a default media server for streaming Windows Media on demand.
- **On Demand MPEG4.** By default, the Local IIS Web Server is configured to deliver MPEG4 media as a progressive download (http streaming). An external media server such as Darwin or QuickTime streaming server can be configured in [Media Servers](#) and then selected as a default media server for streaming MPEG4 on demand.
- **On Demand Real Media.** By default, the Local IIS Web Server is configured to deliver Real Media as http streaming. An external media server such as a Helix streaming server can be configured in [Media Servers](#) and then selected as a default media server for streaming Real Media on demand.

## About Managing Users

The **Users** menu is used to add new users, change user privileges and delete users.

### Guest Access

The Content Server supports guest access to view conferences. If you want guest users to view conferences without having to log in to the Content Server:

- Select **Allow Guest Access** checkbox in **Site Settings**, and
- Select **Allow access to all users** checkbox in **Conference permissions** for all or some conferences.

With guest access, users only need to enter the Content Server IP address in their browser and they do not have to authenticate at all to view those conferences. In this case, you only need to add users who will have to authenticate (log in) to get special privileges, such as administrators and owners.

### Authenticated Access

The Content Server also supports authenticated access to view conferences. If you want only authenticated users to view conferences, make sure that the **Allow Guest Access** checkbox is deselected in **Site Settings**. In this case, you have to add all users who need access to view, edit or administer content (through the **Add Users** page). If you select **Allow access to all users** checkbox in **Conference permissions**, those conferences will be available for viewing by all authenticated users.

### Authenticated and Guest Access

It is also possible to have a mixture of guest and authenticated access for viewing conferences. If you want some conferences to be available to everybody, and other conferences restricted to authenticated users:

- Select **Allow Guest Access** checkbox in **Site Settings**, and ...
- Select **Allow access to all users** checkbox in **Conference Permissions** for conferences you want guests to see.
- Add users and/or groups who need to login to the Content Server (through the **Add Users** page) and then enter user- or group names in **Conference Permissions** for conferences that only those authenticated users should be able to view.

Depending on the authentication method chosen in **Site Settings**, administrators can add local users (who have been created on the local computer) or users (or groups) authenticated via LDAP.

## Viewing the Users Page

**Users**

1 2 >

☐ User Name

TANDBERG Content Server

View Conferences | Conference Setup | Administrator Settings | Help | Preferences | Logout

**Users**

<input type="checkbox"/>	User Name	Display Name	User Role	User/Group
<input type="checkbox"/>	Administrator <a href="#">Edit</a>	System Administrator	System administrator	User
<input type="checkbox"/>	jeremy.mould <a href="#">Edit</a>	Jeremy Mould	Authenticated user	User
<input type="checkbox"/>	ross.dewstow <a href="#">Edit</a>	Ross Dewstow	Conference creator	User

[Delete Selected](#) [Add Users](#)

There may be too many users to be displayed on a single page with the selected number of users displayed per page. Go to the other pages here.

By clicking on **User Name**, **Display Name**, **User Role** and **User/Group**, the sorting order will be displayed in either Ascending or Descending order, depending on the direction of the arrow next to the column name.

Click here to add new users. Details on this can be found on the next page.

Click here to delete the users selected.

Select users to be deleted. Use the checkbox above the column to select all users.  
Greyed out boxes cannot be selected.

# About Adding Users

## Adding Users Under Local Authentication

If **Local authentication** is selected in **Site Settings**, local users can log in to the Content Server.

Firstly, you need to ensure that local user accounts have been created on the Content Server. You can create local user accounts from the Windows Server administration site in the **Administrator Settings** menu.

These users then need to be added to the Content Server database by entering their usernames on the **Add Users** page. Please note that adding local groups is not supported.

Local usernames must be entered in this format:

**MACHINENAME\user.name:Display Name(optional)**

## Adding Users Manually

LDAP/Active Directory users need to be added manually through the **Add Users** page before they can log in if:

- **Domain** or **LDAP authentication** is selected in **Site Settings**, and
- **Allow Guest Access** is selected in **Site Settings**.

Adding users under Domain authentication:

- Users must be entered in this format: DOMAINNAME\user.name or DOMAINNAME\user.name:Display name

Adding users under LDAP authentication:

- Users must be entered in this format: user.name or user.name:Display name

## Adding Groups

Groups always need to be added manually through the **Add Users** page.

LDAP/Active Directory groups must be entered in this format:

**@group.name**

Please note that although a group is added in this format, **@group.name**, both the group name and its base DN are displayed in the **Users** page.

When adding a group, all members of that group will be automatically added to the Content Server on login with the privileges you assigned to the group, if **Domain** or **LDAP authentication** is selected in **Site Settings**, and regardless of whether or not **Allow Guest Access** is selected in **Site Settings**.

If you add a group with **Owner** privileges, as members of that group log in to the Content Server, their accounts will be automatically created. The **User Role** next to their user name in the **Users** page will appear to be **User**, but they will have **Owner** privileges inherited from their group membership.

If you want all members of the group to be **Users** or **Owners**, but some members of the group need administrative privileges, you can change the **User Role** for these members to **Admin**. The highest user role will be applied.

## Adding Users or Groups Under Domain or LDAP Authentication

When **Domain** or **LDAP authentication** is selected in **Site Settings**, LDAP/Active Directory users or groups can log in to the Content Server.

Active Directory users can be added to the Content Server manually or automatically.

Groups need to be added manually. Any users in those groups will then be able to log in without having to be added individually. The user will inherit group privileges from the group they belong to.

## Adding Users Automatically

All users with valid accounts on the Domain or LDAP server will be added automatically upon login if:

- **Domain** or **LDAP authentication** is selected in **Site Settings** and
- **Allow Guest Access** is deselected in **Site Settings**.

Users added automatically will only have privileges to view conferences they are authorized to view (their user role will be **User**). Administrators can give users special privileges by changing their role to **Owner** or **Administrator**.

# Adding Users

## About the Add Users Page

Use the **Add Users** page to add users to the system.

Users need to be added to the user database on the Content Server in order to log in.



To add users, enter one user name per line, or user names separated by a semicolon.

**Add Administrators**

```
admin.user1
admin.user2
admin.user3
```

**Add Administrators**

```
admin.user1;admin.user2;admin.user
3;admin.user4
```

## Adding Administrators, Owners and Users

**Add Users**

[Add Users](#) [Return](#)

**Add Administrators**

Local Format  
Users: MACHINENAME\user.name\display Name (optional)  
Domain Format  
Users: DOMAINNAME\user.name\display Name (optional)  
Groups: @group.name  
LDAP Format  
Users: user.name\display Name (optional)  
Groups: @group.name

**Add Owners**

Local Format  
Users: MACHINENAME\user.name\display Name (optional)  
Domain Format  
Users: DOMAINNAME\user.name\display Name (optional)  
Groups: @group.name  
LDAP Format  
Users: user.name\display Name (optional)  
Groups: @group.name

**Add Users**

Local Format  
Users: MACHINENAME\user.name\display Name (optional)  
Domain Format  
Users: DOMAINNAME\user.name\display Name (optional)  
Groups: @group.name  
LDAP Format  
Users: user.name\display Name (optional)  
Groups: @group.name

[Add Users](#) [Return](#)

To ensure users have the right privileges, enter user names in the correct text field:

- Users entered in the **Add Administrators** text field will have administrative privileges.
- Users entered in the **Add Owners** text field will be able to make calls from the Content Server interface, edit personal recording aliases that they own and edit conferences they have recorded with a recording alias which gives them editor privileges.
- Users entered in the **Add Users** text field will be able to view conferences they have access to (these users will only see the **View Conferences** menu).

Click here to return to the **Users** page undoing any changes made.

Click here to add users to the database after you have entered the new users.



User names are not checked when they are entered on this page—you need to ensure that user details are correct, otherwise users will not be able to log in!

## About Templates

The contents of a template determine how a videoconference is streamed/recorded by the TANDBERG Content Server.

The Content Server comes with a number of pre-defined templates that have no select box and so cannot be deleted. They can be edited and saved as new templates.

Templates that are used in a recording alias cannot be deleted. They are identifiable because their check box is greyed out.

Administrator created templates can be edited, changed and saved or saved as a new template.



Options to think about for using existing, or creating new templates to produce the output required:

- What codecs or combinations of codecs are needed? Windows Media, Real Media or QuickTime?
- Is the conference needed to be streamed live or on demand or both?
- What sizes are needed for the outputs: audio, small, medium or large?
- Will there be any outputs for playback in portable devices?
- What layout do you want for playback in the viewer or for the portable device?
- Would you like to have your recorded conference media uploaded to your iTunes U account or your Podcast Producer server?

According to what answers are given to the above options, a recording/streaming template can be chosen from one of the existing system templates, one of the system templates can be saved as a new template, or a new template can be created.

## The Templates Page

**Templates**

1 2 >

<input type="checkbox"/>	Name
<input type="checkbox"/>	MPEG-4 live <a href="#">Edit</a>
<input type="checkbox"/>	Windows Media PoP Live and On Demand <a href="#">Edit</a>
<input type="checkbox"/>	Windows Media PoP Live and On Demand with Portable Device Download <a href="#">Edit</a>
<input type="checkbox"/>	Windows Media PoP On Demand Only <a href="#">Edit</a>
<input type="checkbox"/>	Windows Media Single Live and On Demand <a href="#">Edit</a>

[Delete Selected](#) [Add Template](#)

There may be too many templates to be displayed on a single page given the preset number of templates displayed per page. Go to the other pages here. Check your [Preferences](#) to change the number of displayed **Items Per Page**.

Select templates to be deleted. Use the check-box above the column to select non-predefined templates. Predefined system templates cannot be deleted from the interface. Templates that are used in recording aliases cannot be selected or deleted from the list.

Click on the **Add Template** button to create a new template.

Click here to delete the templates selected.



Any template can be edited and then saved with changes or saved as a new template. Templates that are being used in a call can also be edited for the next call.

## About System Templates

A number of System Templates are available by default. System templates cannot be changed but they can be edited and then saved as a new template.

## The Template Editor

Windows Media PoP Live and On Demand [Edit](#)

Windows Media PoP Live and On Demand with Portable Device Download [Edit](#)

Windows Media PoP On Demand Only [Edit](#)

Windows Media Single Live and On Demand [Edit](#)

Windows Media Single On Demand Only [Edit](#)

**Template Editor**

[Save As](#) [Return](#)

**Template**

Name  \*

**Output Viewing Options**

Create movies for the Content Viewer ☒

If changes are made to the template and you want to keep it, enter a new name for the template and click the **Save As** button. The new name will initially be called "Copy of ...". Enter a new name to reflect the changes in the template and save it.

Click **Cancel** to not save the changes.

The Template "Windows Media Single Live and On Demand" has been edited here to show this screen. Changes cannot be saved to these System Templates, but they can be saved as new Templates.

Clicking the **Return** button will take you back to view the list of templates.



## The Output Viewing Options

### Output Viewing Options

The Output Viewing Options allow you to choose the different ways in which conferences created using this template can be viewed by users.

The options are:

- Movies to be displayed in the Content Viewer
- Movies to be created for download to Portable Devices
- Movies to be created for download and playback on the user's computer.
- Movies to be created and uploaded to a Distribution Media Server: Podcast Producer Server, and/or to iTunesU.

If a conference has **Create movies for Distribution** selected and no other outputs, no media will be available for viewing locally on the Content Server until another type of Output Viewing Options is selected for this conference.

The screenshot shows a web-based configuration window titled 'Template'. At the top, there is a 'Name' field containing the text 'Distribute Content' and a small red star icon. Below this, the 'Output Viewing Options' section is displayed with four checkboxes, all of which are checked:

- Create movies for the Content Viewer ☒
- Create movies for Portable Devices ☒
- Create movies for Download ☒
- Create movies for Distribution ☒

At the bottom of the window, there is a list of output viewing options, each with a small icon and a label: 'Content Viewer', 'Portable Devices', 'Download', and 'Distribution'. The 'Content Viewer' option is currently selected and highlighted.

## The Content Viewer (I)

### Output Layout

The Output Layout determines the way in which conferences are streamed and played back.

Available options include:

**Two Videos**—creates a video for the Main source and one for the Dual Source (VCR, Document Camera etc) for viewing in the Viewer. If Dual is not activated during the call, then only the Main Video will be available for On Demand playback. A dual stream will be displayed for Live conferences whether it is turned on or not.

**Joined**—creates one video output consisting of the main source on the left and the dual to the right joined as one video file. Dual will be displayed as a poster when it is not activated.

**Switching**—creates one video output. The Main video is replaced by the Dual when Dual is activated, then replaced by Main when Dual is stopped.

**Picture in picture**—creates one video with main inserted into the Dual. When Dual is activated, the Main video will transition to the selected location, displaying the Dual video. On turning off Dual, the Main will transition to take up the entire video.



For more information and examples of layouts, see also [Presentation Window](#).

### Movie Settings

**Formats.** There are three formats available.

- Windows Media for playback using Windows Media Player.
- MPEG4 for playback using QuickTime.
- Real Media for playback using Real Media Player.

Windows Media, MPEG4 and Real Media formats can be viewed on a PC, as long as the correct plugins have been downloaded and installed.

Only MPEG4 format playback is supported on a Macintosh.

To support users watching a conference on a mixture of PCs and Macintoshes, choose Windows Media and MPEG4 formats. The Windows Media format will be automatically selected and played back on a PC, and MPEG4 on a Macintosh.

If you select one format only - MPEG4 - users on a PC will need to install QuickTime Player on their computers to view the conference, if the QuickTime plugin is not already installed.

## The Content Viewer (II)

### Movie Settings

**Conference Sizes.** You can select up to two conference sizes. Your selection of conference sizes in the Template Editor should be based on the end-user's streaming environment and Internet connection.

**Audio-only.** If your users have a very poor quality Internet access, choose 'Audio-only'. The average bit rate for streaming the conference will be around 35 kbps. Audio from the Main source will be recorded and played back, and if Dual Video is activated during the call, it will be displayed as still images.

**Small.** If your users have 56k modem access, choose 'Small'. The average bit rate for streaming the conference will be around 51 kbps.

The resolution of the recorded video in the Switching layout will be up to 160x120 pixels (for QCIF, CIF, 2.5CIF and 4CIF calls) and 212x120 pixels (for w288p, w448p, w576p, 720p). In the Two Videos layout, Dual Video will be displayed as still images only.

**Medium.** If your users have broadband access to the Internet (around 500kbps), choose 'Medium'. The bit rate for streaming the conference will depend on the bandwidth of the call, but will be capped at 471 kbps. So, for example, a 128k call bandwidth will result in a 117kbps streaming bit rate for your conference, and a 384k call bandwidth will result in a 353kbps bit rate. All calls 512K and over will result in a 471kbps bit rate for your streaming conference.

The resolution of the recorded video will depend on the video format negotiated for the call as well as the call bandwidth, apart from QCIF calls, which will always get a 160x120 pixels resolution.

In the Switching layout, the resolution will be:

- 240x180 pixels for CIF, 2.5CIF and 4CIF calls made at or below 384k;
- 320x180 pixels for w288p, w448p, w576p, 720p calls made at or below 384k;
- 320x240 pixels for CIF, 2.5CIF and 4CIF calls made at or above 512k;
- 424x240 pixels for w288p, w448p, w576p, 720p calls made at or above 512k.

### Movie Settings

**Large.** If your users have access to a high-speed LAN, choose 'Large'. Beware, the bit rate for streaming the conference will depend on the bandwidth of the call, and can be as high as 1.76Mbps for a 1920k call. Users on broadband connections which cannot support this streaming bit rate will get a very poor streaming experience, with video buffering, stopping and starting (stuttering). This format also takes the longest to transcode.

The resolution of the recorded video will depend on the video format negotiated for the call as well as the call bandwidth, apart from QCIF calls, which will always get a 160x120 pixels resolution, CIF calls, which get 352x264 pixels and w288p calls, which get 512x288 pixels.

In the Switching layout, the resolution will be:

- 480x360 pixels for 2.5CIF and 4CIF calls made at or below 768k;
- 640x360 pixels for w448p, w576p and 720p calls made at or below 768k;
- 576x448 pixels for 2.5CIF calls made at or above 1152k;
- 768x448 pixels for w448p, w576p and 720p calls made at or above 1152k.



**Large** and **Medium** sizes have been designed to provide the optimum viewing experience based on adaptive algorithms which are dependent on the video format negotiated during the call and the bandwidth of the call. Higher quality inputs with a large amount of data will result in a high resolution and high streaming bit rate outputs—e.g. a Large size Windows Media Switching layout template used in a w576p call made at a bandwidth of 1920k will result in a 768x448 video streaming at a bit rate of 1.76 Mbps. Lower quality inputs with less data will result in lower resolution and lower bit rate outputs—e.g. the same Large size template used in a 384k 4CIF call will result in a 480x360 video streaming at 353 kbps.

## The Content Viewer (III)

### Movie Settings

**On Demand Media Server Settings.** Displays the default Media Servers selected in the **System Defaults** section of the **Site Settings** page, for the selected Formats. Select the Media Servers for On Demand viewing of the conferences recorded using this template. Non selected formats will be greyed out.

**Live Stream.** Choose if the Conference is to be viewed Live. Select the Format and Size if more than one is selected in the Movie Settings. Only one live stream is available per conference – other formats and sizes you selected in the template will be transcoded after the conference has finished.

The screenshot shows the 'The Content Viewer (III)' configuration window. It contains several sections: 'Output Layout' with radio buttons for 'Two videos', 'Joined', 'Switching' (selected), and 'Picture in picture'; 'Movie Settings' with a list of formats (Windows Media, MPEG4, Real Media) and a 'Conference sizes' dropdown (Audio only, Small, Medium, Large); 'On Demand Media Server Settings' with dropdowns for each format; 'Live Stream' with a checkbox (checked) and dropdowns for Format and Size; and 'Live Media Server Settings' with a dropdown for the Media Server. Orange arrows point from the text blocks to the 'Movie Settings', 'On Demand Media Server Settings', 'Live Stream', and 'Live Media Server Settings' sections.

**Live Media Server Settings.** Select the correct Media Server from the list for Live Streaming. If only one is set up, this will be selected. If none are set up, the following error message will be displayed: **Your movie(s) will not be broadcasted live until you have a live enabled Media Server set up.**

You will need to set up a Media Server for live streaming as described in the [Media Server](#) settings section.

**Retranscode realtime movies.** If this is selected, the Live movies will be transcoded again after the Live Conference has completed. This can result in better quality viewing but will also add extra processing and load on the Content Server.

If Retranscode realtime movies is not selected and playback of the Conference OnDemand is not satisfactory, the Live transcoded conference can be retranscoded from the **Summary** section of the **Add Outputs** screen.

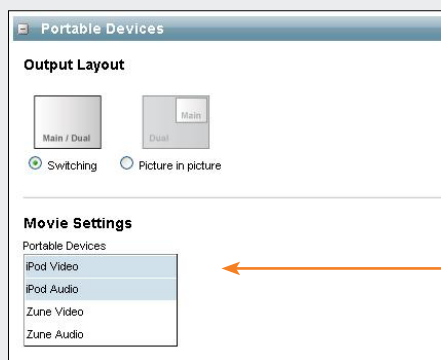
## The Portable Devices Section

This section will only be available if the **Create movies for Portable Devices** option was selected in the Output viewing options section.

### Output Layout

**Switching**—creates one video output. The Main video is replaced by the Dual when Dual is activated, then replaced by Main when Dual is stopped.

**Picture in picture**—creates one video stream with main picture inserted into the Dual. When Dual is activated, the Main video will transition to the selected location, displaying the Dual video. On turning off Dual, the Main will transition to take up the entire video. This layout can be restrictive when viewing on a small screen.



**Movie Settings.** Choose the outputs for your portable devices.

Options are:

- iPod Video
- iPod Audio
- Zune (Microsoft compatible) Video
- Zune Audio.

Once the Offline Transcoder has created the outputs, they will be available for Users from the Download link and icon on the Recorded Conference Listing page.

Users then copy the files to the correct folder for synchronizing with their Portable Device.

## The Download Section

The Download section will only be available if the **Create movies for Download** option was selected in the Output viewing options section.

### Output Layout

**Joined**—creates one video output consisting of the main source on the left and the dual to the right joined as one video file. Dual will be displayed as a poster when it is not activated.

**Switching**—creates one video output. The Main video is replaced by the Dual when Dual is activated, then replaced by Main when Dual is stopped.

**Picture in picture**—creates one video with main picture inserted into the Dual. When Dual is activated, the Main video will transition to the selected location, displaying the Dual video. On turning off Dual, the Main will transition to take up the entire video.

The screenshot shows a window titled "Download" with two main sections: "Output Layout" and "Movie Settings".

**Output Layout:** This section contains three visual representations of video layouts: "Joined" (two side-by-side boxes labeled "Main" and "Dual"), "Switching" (a single box labeled "Main / Dual"), and "Picture in picture" (a box labeled "Dual" with a smaller "Main" box inside it). Below these are three radio buttons: "Joined" (unselected), "Switching" (selected), and "Picture in picture" (unselected).

**Movie Settings:** This section has two columns. The left column is titled "Formats (choose up to 3)" and contains a list box with "Windows Media", "MPEG4", and "Real Media". The right column is titled "Sizes (choose up to 2)" and contains a list box with "Audio Only", "Small", "Medium", and "Large".

Orange arrows point from the text descriptions to the corresponding UI elements: one from "Output Layout" to the "Switching" radio button, and another from "Movie Settings" to the "Sizes" list box.

### Movie Settings

**Formats**—there are three formats available. Windows Media for playback using Windows Media Player, MPEG4 for playback using QuickTime Player and Real Media for playback using Real Media Player. Either 1, 2 or 3 formats can be chosen.

**Conference Sizes**—as files will be downloaded and viewed on a computer, the internet connection is not then an issue, other than the time it takes to download them. The advantage is for users with poor Internet connections as they can watch the files, once downloaded, without being connected to the Internet.

One or two sizes need to be selected to create a downloadable output.

## The Distribution Section - Podcast Producer and iTunes U

The Distribution section will only be available if the **Create movies for Distribution** option was selected in the Output viewing options section.

### Output layout

**Joined**—creates one video output consisting of the main source on the left and the dual to the right joined as one video file. Dual will be displayed as a poster when it is not activated.

**Switching**—creates one video output. The Main video is replaced by the Dual when Dual is activated, then replaced by Main when Dual is stopped.

**Picture in picture**—creates one video with main picture inserted into the Dual. When Dual is activated, the Main video will transition to the selected location, displaying the Dual video. On turning off Dual, the Main will transition to take up the entire video.



Podcast Producer is a third-party product provided by Apple. For setup and support information on Podcast Producer, go to:

<http://www.apple.com/support/macosexserver/podcastproducer/>



iTunes U is a third-party product provided by Apple. For setup and support information on iTunes U, go to:

[http://www.apple.com/support/itunes\\_u/](http://www.apple.com/support/itunes_u/)

**Podcast Producer.** Choose this option and select a Podcast Producer Media Server to automate the process of uploading recorded content to your Podcast Producer server.

To use the TANDBERG Content Server as a Podcast Capture application, simply make a call on a Recording Alias which uses a template with a Podcast Producer output. On completion of the call, the Content Server will transcode the conference recording using the selected output layout with a large size MPEG-4 video format and upload the file to your Podcast Producer server. There it will be picked up by the Podcast Producer Workflow specified in the Media Server you configured on the Content Server.

**iTunes U.** Chose this option and select your iTunes U Media Server to automate the process of uploading recorded content to an iTunes U account.

The Output Layout option and Size (Small, Medium or Large) specifies the format and quality of the MPEG-4 recording to be uploaded to the iTunes U account selected from the Media Server dropdown menu.

You may also specify an additional audio-only output.

To use the TANDBERG Content Server to capture your iTunes U content, simply make a call on a Recording Alias which uses a template with an iTunes U output. On completion of the call, the Content Server will transcode the conference recording using the settings you specified and upload the file to your iTunes U account.

## The Summary Section

**Viewer Summary.** Shows information about the outputs created by this template for viewing in the Content Viewer. If the conference had a live component, but no offline transcoding has been specified in the template, a retranscode option checkbox will be displayed. This allows administrators to retranscode the live output.

**Portable Devices Summary.** Shows information about the outputs created by this template for Portable Devices. Displays the format for iPod and Zune Video as well as audio formats chosen as well as the Path to the file.

**Download Summary.** Shows information about the outputs created by this template for Download to a user's computer. Displays the Output layout, format and size for all the Downloads selected as well as the Path to the file.

**Distribution Summary.** Shows information about the outputs created by this template for Distribution to Podcast Producer or iTunes U: the Output layout, format and size. The path to the file shows 'External', once the file has been uploaded to Podcast producer or iTunes U.

Summary

Content Viewer

1 - On demand - Picture in picture Windows Media Medium

Retranscode: ☐

Status: Complete

Path: E:\data\media\122351816904-04504251.wmv

URL: mms://122351816904-04504251.wmv

Transcoded: Live transcoded (Content Server 91)

Bandwidth: 480 kbps

Dimensions: 640 x 480

Portable Devices

2 - Download - Switching iPod Video Optimal

Status: Complete

Path: E:\data\download\O122351838221-86179136.mp4

Transcoded: Offline transcoded (Content Server 91)

Bandwidth: 1.1 mbps

Dimensions: 320 x 240

Download

3 - Download - Switching Windows Media Medium

Status: Complete

Path: E:\data\download\O122351844622-99053299.wmv

Transcoded: Offline transcoded (Content Server 91)

Bandwidth: 480 kbps

Dimensions: 424 x 240

Distribution

4 - Podcast Producer - Switching MPEG4 Large

Status: Complete

Path: external

Transcoded: Offline transcoded (Content Server 91)

Bandwidth: 710 kbps

Dimensions: 640 x 360



## The Template Editor

To add a new template, go to Templates menu item. You will be taken to the Templates page. Click the Add Template button at the bottom of the list of Templates.

This will take you to a blank Template Editor page. On this page you can configure the new template and then save it.

Enter the **Name** of the Template as meaningful as possible for the users who will be selecting Templates for their Personal Recording Aliases. The Name does not need to detail the outputs that the Template will create as this information is displayed in the Recording Alias and Create Conference pages.

If none of the Create movies options are selected, the conference will be recorded to a file but no viewable outputs will initially be created. To create outputs from such a conference, Edit the Conference and choose the **Add Outputs** button. This allows an Editor to add viewable outputs to a completed conference that has been recorded.

To create outputs for this Template, choose one or more of the following options:

- Create movies for the Content Viewer
- Create movies for Portable Devices
- Create movies for Download
- Create movies for Distribution

See the [Editing Templates](#) section for full descriptions of all the options available in the Template Editor page.

The screenshot displays two parts of the application interface. The top part, titled 'Templates', shows a list of existing templates with columns for selection checkboxes, names, and edit links. The bottom part, titled 'Template Editor', shows a form for creating a new template. It includes a 'Name' field, a 'Save' button, a 'Return' button, and a section for 'Output Viewing Options' with four checked checkboxes. Below this are four expandable sections: 'Content Viewer', 'Portable Devices', 'Download', and 'Distribution'. Orange arrows point from the text instructions to the 'Add Template' button and the 'Name' field.

	Name	
<input type="checkbox"/>	Windows Media Archiving Dual Stream (VWM-ASFDual.xml)	<a href="#">Edit</a>
<input type="checkbox"/>	Windows Media PoP Live and On Demand	<a href="#">Edit</a>
<input type="checkbox"/>	Windows Media PoP Live and On Demand with Portable Device Download	<a href="#">Edit</a>
<input type="checkbox"/>	Windows Media PoP On Demand Only	<a href="#">Edit</a>
<input type="checkbox"/>	Windows Media Single Live and On Demand	<a href="#">Edit</a>

Buttons: Delete Selected, Add Template

**Template Editor**

Buttons: Save, Return

**Template**

Name:

**Output Viewing Options**

- Create movies for the Content Viewer ☒
- Create movies for Portable Devices ☒
- Create movies for Download ☒
- Create movies for Distribution ☒

**Content Viewer**

**Portable Devices**

**Download**

**Distribution**



There is a maximum of 6 outputs per Template. If the limit is exceeded, a message like "This template has 7 outputs. The maximum number of outputs for a template is 6. You must remove 1 output before you can save this template. See Summary for more information." will be displayed and the template cannot be saved if there are more than 6 outputs, so some will have to be deleted.

## About System Templates

The table shown here lists the default Windows Media System Templates that come installed with the Content Server.

## The System Templates Available

Description	Recorded Output
Windows Media PoP Live and On Demand	Uses the Two Videos output consisting of a Main and a Dual. Conference size is Medium for both Live and On Demand.
Windows Media PoP Live and On Demand with Portable Device Download	Uses the Two Videos output consisting of a Main and a Dual. Conference size is Medium for both Live and On Demand. Also has downloadable Video outputs for Zune and iPod using the Switching Output.
Windows Media PoP On Demand Only	Uses the Two Videos output consisting of a Main and a Dual. Conference size is Medium for On Demand. No live output from this Template.
Windows Media Single Live and On Demand	Uses the Switching output. Displays Main but when Dual is switched on, Dual is displayed. Conference size is Medium for both Live and On Demand.
Windows Media Single On Demand Only	Uses the Switching output. Displays Main but when Dual is switched on, Dual is displayed. Conference size is Medium for On Demand viewing only.

## About Media Servers

Use the **Media Servers** page to configure external streaming servers for live streaming and on demand playback of Windows Media, MPEG4 and Real Media. You can also add distribution servers to automate the process of uploading recorded content to Apple's Podcast Producer for further workflow or to Apple iTunes U for hosting

External streaming servers configured here will be available when you create new templates or edit existing templates. You can also specify your configured servers to be the [default servers](#) for new templates.

The TANDBERG Content Server comes with two preconfigured default media servers which cannot be edited or deleted:

- Local IIS Web Server
- Local Windows Media Streaming Server

## The Media Servers Options

Media Servers			
<input type="checkbox"/>	Description	Server Type	Server Address
<input type="checkbox"/>	Existing multicast pub point <a href="#">Edit</a>	WindowsMedia	(local)
<input type="checkbox"/>	Local IIS Web Server <a href="#">Edit</a>	Web	(local)
<input type="checkbox"/>	Local Windows Media Streaming Server <a href="#">Edit</a>	WindowsMedia	(local)
<input type="checkbox"/>	MPEG4 MULTICAST <a href="#">Edit</a>	QuickTime	
<input type="checkbox"/>	MPEG-4 off DSS <a href="#">Edit</a>	QuickTime	
<input checked="" type="checkbox"/>	TEST <a href="#">Edit</a>	WindowsMedia	(local)
<input type="checkbox"/>	xServe <a href="#">Edit</a>	QuickTime	
<div> <input type="button" value="Delete Selected"/> <input type="button" value="Add Windows Media Streaming Server"/> <input type="button" value="Add QuickTime or Darwin Streaming Server"/> <input type="button" value="Add Real Media Streaming Server"/> </div> <div> <input type="button" value="Add Podcast Producer Server"/> <input type="button" value="Add iTunesU Server"/> </div>			

**Local IIS Web Server.** By default, this server is used to deliver MPEG4 and Real Media for on demand playback as a progressive download (HTTP or pseudo-streaming). It also delivers still images, if available. This server cannot be modified or deleted.

**Local Windows Media Streaming Server.** By default, this server is used for streaming Windows Media live and on demand. This server cannot be modified or deleted, but its properties can be edited and it can be saved as a new server.

# Adding Windows Media Streaming Server

TANDBERG CONTENT SERVER  
ADMINISTRATOR GUIDE

## Configuration Options

Click on **Add Windows Media Streaming Server** to create a new server for streaming Windows Media.

Only Windows Media Streaming Servers are supported for streaming Windows Media content off the TANDBERG Content Server.

The configuration options for your Windows Media streaming server include live and on demand streaming.

Live streams can be sent to Windows Media Player clients using either a unicast (**Support Live Unicast Streaming** option) or a multicast (**Support Live Multicast Streaming** option) connection.

Please note that unicast streaming can be configured for either the local or an external Windows Media Streaming Server, but multicast streaming can only be configured with the local Windows Media Streaming Server.

Before you can start delivering your live content as a multicast stream, you need to check with your network administrator that your network is multicast enabled.

## Server Settings

**Media Server: Windows Media Streaming Server**

Save Return

**Server Settings**

Name	<input type="text"/>	*
Server Address	<input type="text" value="(local)"/>	*
Support Live Unicast Streaming	<input type="checkbox"/>	
Support Live Multicast Streaming	<input type="checkbox"/>	
Support On Demand	<input type="checkbox"/>	

**Name.** Enter a descriptive name for the server. The server name will be used in a template when selecting a media server. This field is required.

**Server Address.** Enter the DNS name or the IP address of the server. Use (local) if it is on this TANDBERG Content Server. This field is required.

**Support Live Unicast Streaming.** Select if the server is to support live unicast streaming. Once selected the Media Server will be available to choose in the Live Media Server Settings for templates that stream Windows Media.

**Support Live Multicast Streaming.** Select if the server is to support live multicast streaming. Once selected the Media Server will be available to choose in the Live Media Server Settings for templates that stream Windows Media. If you select this option, the Unicast and On Demand options will become unavailable, so you cannot create a multicast and on demand streaming server as one Media Server.

**Support On Demand.** Select if the server is to support on demand streaming. Once selected the Media Server will be available to choose in the On Demand Media Server Settings for templates that stream Windows Media.



**Unicast** is the default live streaming option for the default Local Windows Media Streaming Server. Unicast connections are one-to-one connections between each Windows Media Player client and the server. Each unicast client that connects to the server takes up additional bandwidth.

In **multicast** delivery, the server sends only one stream which reaches all player clients at the same time. There is no additional overhead for the server regardless of whether one or more clients are connected.

Multicast delivery is generally used for broadcasting live streams on a corporate network and will only work if all routers on the network are multicast enabled.

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# Configuring Windows Media Streaming Server

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## Live Unicast Streaming Settings

**Server push.** Select this option if you want to push your live stream to an external Windows Media streaming server.

**Port.** Enter the port to be used with an external Windows Media streaming server. The default port if you are using the Content Server's Windows Media streaming server is 8080.

### Publishing Points

**Create new.** Choose this option if you want the Content Server to create new publishing points on your external streaming server.

**Create new using settings from existing.** Choose this option if you want the Content Server to create new publishing points on your external streaming server, using the settings from existing publishing points. Enter the existing **Publishing Points** for your **Main** and **Dual** video streams (they can be the same in both fields).

**Use existing.** Choose this option if you have already set up publishing points on your external streaming server. Enter the existing **Publishing Points** for your **Main** and **Dual** video streams. There must be two different publishing points to stream one video stream off each.

### Live URLs

**Use default live URLs.** Choose this option to use the default live URL for this media server.

**Use alternate live URLs.** Choose this option to supply your own URLs for live streaming. Enter the URLs for **Main** and **Dual** video streams and choose whether you wish the filename (in this case the publishing point name) to be appended to the alternate URL.

The screenshot shows the 'Live Unicast Streaming Settings' window. It is divided into three main sections: 'Server Settings', 'Publishing Points', and 'Live URLs'. In the 'Server Settings' section, 'Server Push' is selected. The 'Publishing Points' section has 'Create new' selected. The 'Live URLs' section has 'Use default live URLs' selected. Orange arrows point from the explanatory text on the left and right to the corresponding fields in the window: 'User Name', 'Password', 'Password Confirm', 'Port', 'Main' and 'Dual' fields for 'Create new using settings from existing', 'Main' and 'Dual' fields for 'Network Pull Port(s)', and 'Main' and 'Dual' fields for 'Use alternate live URLs'.

Server Settings	
User Name	<input type="text"/>
Password	<input type="password"/>
Password Confirm	<input type="password"/>

Publishing Points	
<input checked="" type="radio"/> Server Push	
Port	<input type="text"/>
<b>Publishing Points</b>	
<input checked="" type="radio"/> Create new	
<input type="radio"/> Create new using settings from existing	
<input type="radio"/> Use existing	
Main	<input type="text"/>
Dual	<input type="text"/>
Main	<input type="text"/>
Dual	<input type="text"/>
<b>Network Pull Port(s)</b>	
Main	<input type="text"/>
Dual	<input type="text"/>

Live URLs	
<input checked="" type="radio"/> Use default live URLs	
<input type="radio"/> Use alternate live URLs	
Main	<input type="text"/>
Dual	<input type="text"/>
	<input type="checkbox"/> Append filename to URL
	<input type="checkbox"/> Append filename to URL

### Live settings

**User Name.** Enter the user name to be used for authentication with your streaming server.

**Password.** Enter the password to be used for authentication with your streaming server.

**Password Confirm.** Enter the password again to confirm.

**Network pull port(s).** Select this option if you want the external server to request the stream. A network publishing point must be created on the external Windows Media streaming server to use this functionality. Enter the ports for network pull of **Main** and **Dual** video streams—select ports that are NOT being used by the Content Server (see the Appendix for a list of ports used by the Content Server).

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# Configuring Windows Media Streaming Server

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## Live Multicast Streaming Settings

Select **Support Live Multicast Streaming** to create your multicast Media Server (the other options will become unavailable).

Windows Media multicast streaming is only available from the Content Server, therefore the Server Address is set to (local) and the option is greyed out in the interface.

**Server Push Port.** The default port for the local Content Server's Windows Media streaming server is 8080.

**Create new using settings from existing.** Choose this option if you want the Content Server to create new publishing points using the settings from existing publishing points. Enter the existing **Publishing Points** for your **Main** and **Dual** video streams (they can be the same in both fields). The default multicast enabled publishing point on the TANDBERG Content Server is **TCSmulticastTemplate**.

**Multicast IP Address.** Enter a destination multicast address. The Content Server will stream to this IP address. The range of allowable IP Addresses is from 224.0.0.1 to 239.255.255.255. The multicast address you need to enter will depend on the configuration of your network.

If you do not enter a Multicast IP address, the Content Server will use the first two octets of the IP address specified in the **Destination multicast IP address of the WMS Multicast Data Writer properties of the multicast publishing point**, but it will dynamically assign the last two octets, eg. if an IP address like 10.0.1.1 is specified at the publishing point, the Content Server may use any addresses in the 10.0 range for multicast streaming.

**Media Server: Windows Media Streaming Server**

Save Return

**Server Settings**

Name \*

Support Live Unicast Streaming ☐

Support Live Multicast Streaming ☒

Support On Demand ☐

Multicast Server Address (local) \*

**Live Multicast Streaming Settings**

**Server Settings**

Please ensure that your network is multicast enabled for Live Multicast Streaming to work.

Server Push Port 8080

**Publishing Points** - these must be multicast enabled publishing points for multicast to work.

☒ Create new using settings from existing

Main \*

Dual \*

Multicast IP Address From 224.0.0.1 to 239.255.255.255

Streaming port range start From 10000 to 65000

TTL Subnet

☐ Use existing

Main \*

Dual \*

**Live URLs**

Main http://(local)/tcs/data ☒ Append filename to URL

Dual http://(local)/tcs/data ☒ Append filename to URL

**Streaming port range start.** Enter a port number for the start of the live streaming port range. The port range must be from 10000 to 65000.

**TTL.** Choose the multicast time to live (TTL) threshold. The "multicast TTL" tells the network how far multicast packets should be allowed to travel across the network. The value "Subnet" (i.e. TTL=1) means that packets do not pass the first network router. This setting should mean a multicast stream is viewable on any network, even those not enabled for multicast, where the client is on the same subnet as the Content Server. The efficacy of higher values: LAN (TTL=32), WAN (64), Internet (128), Unrestricted (255) depends on the configuration of the network.

**Use existing.** Choose this option if you have set up publishing points on your streaming server. Enter the existing **Publishing Points** for your **Main** and **Dual** video streams. There must be two different publishing points to stream one video stream off each, if you are using a Two Videos layout. If you are using Switching, Joined or PIP layouts, you need to specify only one publishing point, for Main.

**Live URLs.** Only the default URLs are available, therefore (http://(local)/tcs/data) is set in in Main and Dual fields, Append filename to URL is selected and those options are greyed out in the interface.

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## On Demand Settings

### Media location

#### Write movies to the default media location.

Select this option if you want your media to be written to the Content Server's default media location (you can check the default media storage location in the Server Maintenance page). The default media location for Windows Media files is (media location)\data\media.

**Write movies to an alternate location.** Choose this option if you want to write the media to an external streaming server using a shared drive or UNC path. Enter the shared drive or UNC path, e.g. //servername in the **Alternate path** field.

**FTP movies to location.** Choose this option to FTP the media files to the external streaming server once the call has ended.

**Server Address.** Enter the IP address or DNS name of the FTP server.

**Port.** Enter the port number of the FTP service. Most FTP servers will use port 21.

**Directory.** Enter the directory relative to the root FTP directory on the FTP server. Leave this blank to upload to the root FTP directory. The directory should be specified using forward slashes like in a URL, e.g. /movies/.

**User Name.** Enter the username to be used for authentication with the FTP server.

**Password.** Enter the password to be used for authentication with the FTP server.

**Password Confirm.** Enter the password again to confirm.

The screenshot shows the 'On Demand Settings' dialog box. It has two main sections: 'Media location' and 'On Demand URLs'. In the 'Media location' section, the 'Write movies to the default media location' radio button is selected. In the 'On Demand URLs' section, the 'Use default on demand URLs' radio button is selected. Orange arrows point from the text instructions on the left to the corresponding fields in the dialog box: 'Write movies to the default media location', 'Write movies to an alternate location', 'FTP movies to location', 'Server Address', 'Port', 'Directory', 'User Name', 'Password', 'Password Confirm', 'Use default on demand URLs', 'Use alternate on demand URLs', 'Main', 'Dual', 'Append filename to URL' (checkbox), and 'Append filename to URL' (checkbox).

### On demand URLs

**Use default on demand URLs.** Choose this option to use the default on demand URL for this media server.

**Use alternate on demand URLs.** Choose this option to supply your own URLs for on demand streaming. Enter the URLs for **Main** and **Dual** video streams and choose whether you wish the filename to be appended to the alternate URL.

# Adding QuickTime or Darwin Streaming Server

## Configuration Options

The Content Server default installation supports only HTTP-based on demand streaming of MPEG4 from its local IIS Web Server. An external media server must be set up for live unicast and true (RTSP) on-demand streaming of MPEG4.

Click on the **Add QuickTime or Darwin Streaming Server** to configure an external server for streaming MPEG4 media.

Only Darwin and QuickTime Streaming Servers are supported for streaming MPEG-4 content off the TANDBERG Content Server.

The configuration options for your QuickTime or Darwin streaming server include live and on demand streaming.

There are two options for configuring the media server for live MPEG4 streaming:

- **Live unicast streaming.** This requires an external QuickTime or Darwin streaming server to relay streams to clients.
- **Live multicast streaming.** This option requires a Media Server to be set up on the Content Server but does not require an external QuickTime or Darwin streaming server to relay streams to clients - the multicast stream is sent directly from the Content Server.

## The QuickTime Or Darwin Streaming Server Settings

**Media Server: QuickTime or Darwin Streaming Server**

Save Return

**Server Settings**

Name \*

Support Live Unicast Streaming ☒

Support Live Multicast Streaming ☐

Support On Demand ☒

Unicast & On Demand Server Address \*

### Server settings

**Name.** Enter a descriptive name for the server. The server name will be used in a template when selecting a media server. This is a required field.

**Support Live Unicast Streaming.** Select if the server is to support live unicast streaming. Once selected the Media Server will be available to choose in the Live Media Server Settings for templates that stream MPEG4.

**Support Live Multicast Streaming.** Select if the Media Server is to support live multicast streaming. Once selected the Media Server will be available to choose in the Live Media Server Settings for templates that stream MPEG4.

**Support On Demand.** Select if the server is to support on demand streaming. Once selected the Media Server will be available to choose in the On Demand Media Server Settings for templates that stream MPEG4.

**Unicast and On Demand Server Address.** Enter the DNS name or the IP address of the external streaming server. This is a required field.



**Unicast** connections are one-to-one connections between each QuickTime Player client and the server. Each unicast client that connects to the server takes up additional bandwidth.

In **multicast** delivery, the server sends only one stream which reaches all player clients at the same time. There is no additional overhead for the server regardless of whether one or more clients are connected.

Multicast delivery is generally used for broadcasting live streams on a corporate network and will only work if all routers on the network are multicast enabled.



# Configuring QuickTime or Darwin Streaming Server

TANDBERG CONTENT SERVER  
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## Live Unicast Streaming Settings

### Live unicast streaming settings

**Streaming port range start.** Specify the start port for your streaming port range, e.g. 30000. The start port must be an even number. The Content Server will use the streaming start port + 30 to be used for streaming live calls, eg. a port range from 30000 to 30030. Ensure that you select ports that are NOT being used by the Content Server (see the Appendix for a list of ports used by the Content Server).

**User Name.** Enter the user name to be used for authentication with your streaming server.

**Password.** Enter the password to be used for authentication with your streaming server.

**Password Confirm.** Enter the password again to confirm.

**Live Unicast Streaming Settings**

**Live Unicast Settings**

Streaming port range start

User Name

Password

Password Confirm

**Live URLs**

☒ Use default live URLs

☐ Use alternate live URLs

Main  ☐ Append filename to URL

Dual  ☐ Append filename to URL

### Live URLs

**Use default live URLs.** Choose this option to use the default live URL for this media server.

**Use alternate live URLs.** Choose this option to supply your own URLs for live streaming. Enter the URLs for **Main** and **Dual** video streams and choose whether you wish the filename (in this case the sdp filename) to be appended to the alternate URL.

## Live Multicast Streaming Settings

### Live multicast streaming settings

**Multicast IP Address.** Enter a destination multicast address. The range of allowable IP Addresses is from 224.0.0.1 to 239.255.255.255. The multicast address will depend on the configuration of the network.

**Streaming port range start.** Enter a port number for the start of the Live Streaming Port Range. The port range must be from 10000 to 65000 and must be an even number.

**Live Multicast Streaming Settings**

Multicast IP Address  ★ From 224.0.0.1 to 239.255.255.255

Streaming port range start  Even number From 10000 to 65000

TTL

**TTL.** Choose the multicast time to live (TTL) threshold. The “multicast TTL” tells the network how far multicast packets should be allowed to travel across the network. The default threshold is LAN (TTL=32). The value “Subnet” (i.e. TTL=1) means that packets do not pass the first network router. This setting should mean a multicast stream is viewable on any network, even those not enabled for multicast, where the client is on the same subnet as the Content Server. The efficacy of higher values WAN (64), Internet (128), Unrestricted (255) depends on the configuration of the network

## The On Demand Settings

### Media location

#### Write movies to the default media location.

Select this option if you want your media to be written to the Content Server's default media location (you can check the default media storage location in the Server Maintenance page). The default media location for MPEG4 files is (media location)\data\www.

**Write movies to an alternate location.** Choose this option if you want to write the media to an external streaming server using a shared drive or UNC path. Enter the shared drive or UNC path, e.g. //servername in the Alternate path field.

**FTP movies to location.** Choose this option to FTP the media files to the external streaming server once the call has ended.

**Server Address.** Enter the IP address or DNS name of the FTP server.

**Port.** Enter the port number of the FTP service. Most FTP servers will use port 21.

**Directory.** Enter the directory relative to the root FTP directory on the FTP server. Leave this blank to upload to the root FTP directory. The directory should be specified using forward slashes like in a URL, e.g. /movies/.

**User Name.** Enter the username to be used for authentication with the FTP server.

**Password.** Enter the password to be used for authentication with the FTP server.

**Password Confirm.** Enter the password again to confirm.

The screenshot shows the 'On Demand Settings' window. It has two main sections: 'Media location' and 'On Demand URLs'. In the 'Media location' section, the 'Write movies to the default media location' radio button is selected. Below it are fields for 'Alternate path', 'Server Address', 'Port', 'Directory', 'User Name', 'Password', and 'Password Confirm'. In the 'On Demand URLs' section, the 'Use default on demand URLs' radio button is selected. Below it are fields for 'Main' and 'Dual' URLs, each with a checkbox for 'Append filename to URL'. Orange callout lines connect the text on the left to the corresponding fields in the window: 'Write movies to the default media location' to the first radio button, 'Alternate path' to the 'Alternate path' field, 'Server Address' to the 'Server Address' field, 'Port' to the 'Port' field, 'Directory' to the 'Directory' field, 'User Name' to the 'User Name' field, 'Password' to the 'Password' field, 'Password Confirm' to the 'Password Confirm' field, 'Use default on demand URLs' to the second radio button, 'Main' to the 'Main' field, and 'Dual' to the 'Dual' field.

### On demand URLs

**Use default on demand URLs.** Choose this option to use the default on demand URL for this media server.

**Use alternate on demand URLs.** Choose this option to supply your own URLs for on demand streaming. Enter the URLs for **Main** and **Dual** video streams and choose whether you wish the filename to be appended to the alternate URL.

# Adding Real Media Streaming Server

## Configuring Real Media Server

## The Real Media Streaming Settings Options

Click on the **Add Real Media Streaming Server** to configure an external server for streaming Real Media.

Only Helix Streaming Server is supported for streaming Real Media content off the TANDBERG Content Server.

**Name.** Enter a descriptive name for the server. The server name will be used in a template when selecting a media server.

**Server Address.** Enter the DNS name or the IP address of the server.

**Support Live Streaming.** Select if the server is to support live streaming. Once selected the Media Server will be available to choose in the Live Media Server Settings for templates that stream Real Media.

**Support On Demand.** Select if the server is to support on demand streaming. Once selected the Media Server will be available to choose in the On Demand Media Server Settings for templates that stream Real Media.

### Live URLs

**Use default live URLs.** Choose this option to use the default live URL for this media server.

**Use alternate live URLs.** Choose this option to supply your own URLs for live streaming. Enter the URLs for Main and Dual video streams and choose whether you wish the filename to be appended to the alternate URL.

**Media Server: Helix Streaming Server**

Save Return

**Server Settings**

Name \*

Server Address \*

Support Live Streaming ☒

Support On Demand ☒

**Live Streaming Settings**

**Live Settings**

Server Type: Server G2

Port

Broadcast Point

User Name

Password

Password Confirm

**Live URLs**

☒ Use default live URLs

☐ Use alternate live URLs

Main ☐ Append filename to URL

Dual ☐ Append filename to URL

### Live streaming settings

**Server Type.** Select either Server G2 or Server 90.

**Port.** Enter the port to be used for live streaming off your Real Media server.

**Broadcast Point.** Enter the broadcast point for the server. If you have not manually changed it on your external server, the broadcast mount point for Server G2 is "encoder", and for Server 90, "broadcast".

**User Name.** Enter the user name to be used for authentication with your streaming server.

**Password.** Enter the password to be used for authentication with your streaming server.

**Password Confirm.** Enter the password again to confirm.

## The On Demand Settings Options

### Media location

#### Write movies to the default media location.

Select this option if you want your media to be written to the Content Server's default media location (you can check the default media storage location in the Server Maintenance page). The default media location for Real Media files is (media location)\data\www.

**Write movies to an alternate location.** Choose this option if you want to write the media to an external streaming server using a shared drive or UNC path. Enter the shared drive or UNC path, e.g. //servername in the Alternate path field.

**FTP movies to location.** Choose this option to FTP the media files to the external streaming server once the call has ended.

**Server Address.** Enter the IP address or DNS name of the FTP server.

**Port.** Enter the port number of the FTP service. Most FTP servers will use port 21.

**Directory.** Enter the directory relative to the root FTP directory on the FTP server. Leave this blank to upload to the root FTP directory. The directory should be specified using forward slashes like in a URL, e.g. /movies/.

**User Name.** Enter the username to be used for authentication with the FTP server.

**Password.** Enter the password to be used for authentication with the FTP server.

**Password Confirm.** Enter the password again to confirm.

The screenshot shows the 'On Demand Settings' dialog box. It has two main sections: 'Media location' and 'On Demand URLs'. In the 'Media location' section, the 'Write movies to the default media location' radio button is selected. In the 'On Demand URLs' section, the 'Use default on demand URLs' radio button is selected. Orange arrows point from the text instructions on the left to the following fields: 'Write movies to the default media location', 'Alternate path', 'Server Address', 'Port', 'Directory', 'User Name', 'Password', 'Password Confirm', 'Use default on demand URLs', 'Broadcast Point', 'Main', 'Dual', 'Append filename to URL' (for both Main and Dual), 'Save', and 'Return'.

### On demand URLs

**Use default on demand URLs.** Choose this option to use the default on demand URL for this media server. Enter the Broadcast Point for the streaming server.

**Use alternate on demand URLs.** Use alternate on demand URLs: Choose this option to supply your own URLs for on demand streaming. Enter the URLs for **Main** and **Dual** video streams and choose whether you wish the filename to be appended to the alternate URL.

# Adding Podcast Producer Server

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## Configuring Podcast Producer Server

## The Podcast Producer Settings

Click on **Add Podcast Producer Server** to configure a distribution media server for uploading content created on the TANDBERG Content Server to your Podcast Producer server for further workflow.

Once you have created your distribution media server, add it to a template.

**Name.** Enter a descriptive name for the server. The server name will be used in a template when selecting a media server.

**Server Address.** Enter the DNS name or the IP address of the server.

**User Name.** Enter the user name to be used for authentication with your Podcast Producer server.

**Password.** Enter the password to be used for authentication with your Podcast Producer server.

**Password Confirm.** Enter the password again to confirm.



Podcast Producer is a third-party product provided by Apple. For setup and support information on Podcast Producer, go to:

<http://www.apple.com/support/macosxserver/podcastproducer/>

Media Server: Podcast Producer Server	
<div>Save Return</div>	
Server Settings	
Name	<input type="text"/>
Server Address	<input type="text"/>
<hr/>	
User Name	<input type="text"/>
Password	<input type="password"/>
Password Confirm	<input type="password"/>
Workflow Name	<input type="text"/>

**Workflow Name.** Enter the workflow name for the workflow you created in Podcast Producer. This workflow defines the set of encoding and publishing tasks to be performed by Podcast Producer. Make sure that the workflow name is spelled correctly here - the Content Server is unable to verify if the workflow exists.

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# Adding iTunes U Server

## Configuring iTunes U Server

## The iTunes U Settings

Click on **Add iTunesU Server** to configure a distribution media server for uploading content created on the TANDBERG Content Server to your iTunes U account for hosting.

Once you have created your distribution media server, add it to a template.

**Name.** Enter a descriptive name for the server. The server name will be used in a template when selecting a media server.

**Site URL.** Enter the Site URL provided by Apple Inc which identifies this iTunes U account.

**Shared Secret.** Enter and confirm the Shared Secret provided by Apple Inc for this iTunes U account.

**Shared Secret Confirm.** Enter the Shared Secret again to confirm.

**Administrator Credentials.** Enter the credential string provided by Apple Inc specifying administrator access permissions.



iTunes U is a third-party product provided by Apple. For setup and support information on iTunes U, go to:

[http://www.apple.com/support/itunes\\_u/](http://www.apple.com/support/itunes_u/)

The image shows a screenshot of the 'iTunes U Server' configuration window. It has a title bar 'iTunes U Server' and two buttons: 'Save' and 'Return'. Below is a section titled 'Server Settings' with two fields: 'Name' and 'Site URL'. The 'Site URL' field contains the text 'https://deimos.apple.com/WebObjects/Core.woa/Browse/'. Below this is the 'Account Details' section with three fields: 'Shared Secret', 'Shared Secret Confirm', and 'Administrator Credentials'. Below that is the 'User Details' section with four fields: 'Display Name', 'User Name', 'E-mail Address', and 'User Identifier'. At the bottom is the 'Upload Information' section with one field: 'Tab ID'. Orange arrows point from the explanatory text on the left and right to the corresponding fields in the form.

**Display Name.** Enter the actual name of the account used to upload content to iTunes U.

**User Name.** Enter the username of the account used to upload content to iTunes U.

**Email address.** Enter the email address of the account used to upload content to iTunes U.

**User Identifier.** Enter the user identifier for the account used to upload content to iTunes U.

**Tab ID.** Enter iTunes U upload location, e.g.: 1234567890.01498307570. This ID is the suffix of the URL found by dragging a tab within iTunes while browsing your iTunes U account.

## About Call Configurations

The **Call Configurations** page allows administrators to set up different configurations for calls. These call configurations can then be selected in a **Recording Alias** and used in a call.

The following call options are controlled by the Call Configuration attached to a Recording Alias:

- H.239 support and resolutions
- supported call speeds
- maximum call length
- encryption support
- supported video and audio codecs.

## Call Configurations Overview

<input type="checkbox"/>	Name
<input type="checkbox"/>	60 Minute Call <a href="#">Edit</a>
<input type="checkbox"/>	System Call Configuration <a href="#">Edit</a>

The **System Call Configuration** cannot be deleted. It can be edited and then saved as a new **Call Configuration**. It has all options selected and is used in the pre-installed **Recording Aliases - Default OnDemand only** and **Default Live and OnDemand**.

User created Call Configurations that are used in a **Recording Alias** will have their selection box greyed out, so cannot be deleted.

# Editing, Duplicating or Creating a New Call Configuration

## About Editing

This is very similar to the template editing described in the articles on [Template Editor](#).

System call configuration cannot be altered— instead it can be edited and saved under a new name to allow changes to be made.

Non-system call configurations, however, may be edited.

The [Call Configuration Editor Page](#) is shown here as it looks when the [Add Call Config](#) button has been clicked.

**Support Encryption.** Select to allow calls using this call configuration to use encryption.

**Advertised Codecs.** The TANDBERG Content Server supports advertising of video and audio codecs as part of the capability set negotiation.

**Video Algorithm.** The administrator can enable advertising of video codecs for each call configuration by selecting the checkbox. Supported advertised codecs include H.261, H.263 and H.264.

**Audio Algorithm.** The administrator can enable advertising of audio codecs for each call configuration by selecting the checkbox. Supported advertised codecs include G.711, G.722 and G.722.1.

## The Call Configuration Editor Settings

Edit Call Configuration	
<div>Save As   Return</div>	
<b>Call Configuration</b>	
Name	System Call Configuration *
<b>H.239 Capabilities</b>	
H.239 Enabled	<input checked="" type="checkbox"/>
Supported Resolutions	<input checked="" type="checkbox"/> VGA (640 x 480) <input checked="" type="checkbox"/> SVGA (800 x 600) <input checked="" type="checkbox"/> XGA (1024 x 768)
<b>Call Options</b>	
Supported Call Speeds (kbps)	<input checked="" type="checkbox"/> 128 <input checked="" type="checkbox"/> 192 <input checked="" type="checkbox"/> 256 <input checked="" type="checkbox"/> 384 <input checked="" type="checkbox"/> 512 <input checked="" type="checkbox"/> 768 <input checked="" type="checkbox"/> 1024 <input checked="" type="checkbox"/> 1280 <input checked="" type="checkbox"/> 1536 <input checked="" type="checkbox"/> 1920 <input checked="" type="checkbox"/> 2048
Maximum Call Length (minutes)	0
Support Encryption	<input checked="" type="checkbox"/>
<b>Advertised Codecs</b>	
Video Algorithm	<input checked="" type="checkbox"/> H.261 <input checked="" type="checkbox"/> H.263 <input checked="" type="checkbox"/> H.264
Audio Algorithm	<input checked="" type="checkbox"/> G.711 <input checked="" type="checkbox"/> G.722 <input checked="" type="checkbox"/> G.722.1

**Name.** Use the **Name** field to provide a short description of your call configuration file.

**H.239 Capabilities Enabled.** H.239 capabilities are enabled by default. If **H.239 Dual Video output** is not required, this capability can be disabled.

**Supported Resolutions.** Administrators can select the resolutions for acceptable H.239 video input. For optimal performance, it is recommended that the maximum resolution be set to 800×600 or 640×480.

**Call Options.** The supported call speeds and maximum time in call can be set for call configuration.

**Supported call speeds (kbps).** The administrator can select the supported call speeds for calls from a range of options from 128 to 2048 kbps. This determines the range of available call bandwidths when the Recording Alias using a given call configuration is dialled.

**Maximum time in call (mins).** This feature will automatically end both incoming and outgoing calls when the call time exceeds the length of time specified in minutes. The default setting in the [Full Call Configuration](#) template is 0, which means that the call will never be automatically ended. The default value for new call configurations is 0.



## About Categories

A conference can be assigned a **Category** to make searching for conferences quicker for the user. **Personal Recording Aliases** can be assigned a category so that any conference created using the alias inherits the category.

There are six categories that come with the Content Server installation, **Announcement**, **Education**, **General**, **Meetings**, **News** and **Training**. Each category contains a name and a description.

Administrators can edit existing categories, delete categories that are not needed and add new categories to the installation. There is no limit on the number of Categories that can be entered.

Delete categories by clicking the **Categories select** box and then the **Delete Selected** button. If a category is deleted, all conferences that were assigned to that category will then have no category assigned to them.

Click the **Add Category** button to add a new category and description.



On View Conferences pages, users will not be able to view or select a category unless it has been assigned to a conference they have permissions to see.

## Adding Categories

Categories		
<input type="checkbox"/>	Category Name	Category Description
<input type="checkbox"/>	Announcements <a href="#">Edit</a>	
<input type="checkbox"/>	Education <a href="#">Edit</a>	
<input type="checkbox"/>	General <a href="#">Edit</a>	
<input type="checkbox"/>	Meetings <a href="#">Edit</a>	
<input type="checkbox"/>	News <a href="#">Edit</a>	
<input type="checkbox"/>	Training <a href="#">Edit</a>	


[Delete Selected](#) [Add Category](#)

Add Category	
<b>Category Details</b>	
Category Name	<input type="text"/>
Category Description	<input type="text"/>
<a href="#">Save</a>	<a href="#">Return</a>

## About Server Logs

Content Server logs from the **Content Engine**, **Content Library** and **Transcode Engine** and **Helper** are available from this menu item.

- **Content Engine** logs are displayed by default.
- Select the service you want to see the log for from the drop-down menu.
- To view a log, click on name of the log file and you will be prompted to open it with your favorite text editor or save it to disk.
- The administrator can navigate through the log files and delete old log files from the interface.
- The current log for the TANDBERG Content Server is displayed first and cannot be deleted.

 All server logs can also be accessed from the E:\logs directory on the Content Server.

Service event logs for the Content Engine, Transcode Engine, and Helper services can be found in the Event Viewer. These events show service starting and stopping information.

## The Server Logs Page

Content Engine	1 2 3 4 5 6 7 8 9 10 > Next 10		
Content Engine	File Name	Modified Date	File Size (bytes)
Content Library			
Transcode Engine	00.log	April 24 2008 02:44:55.	111980
Helper			
<input type="checkbox"/>	TCS08042301-00.log	April 23 2008 02:21:59.	1927
<input type="checkbox"/>	TCS08010802-00.log	April 23 2008 01:36:05.	4434
<input type="checkbox"/>	TCS08010801-00.log	January 08 2008 01:26:15.	1092
<input type="checkbox"/>	TCS07121802-00.log	January 08 2008 00:38:18.	977
<input type="button" value="Delete Selected"/>			

## Content Engine Logs

Content Engine	1 2 3 4 5 6 7 8 9 >		
File Name	Modified Date	File Size (bytes)	
<input type="checkbox"/> TCS07101901-00.log	October 19 2007 14:14:44.	13991	
<input type="checkbox"/> TCS07101802-00.log	October 19 2007 12:15:22.	31054	
<input type="checkbox"/> TCS07101801-00.log	October 18 2007 11:37:01.	23846	
<input type="checkbox"/> TCS07101703-00.log	October 17 2007 15:25:58.	509	
<input type="checkbox"/> TCS07101702-00.log	October 17 2007 15:25:53.	30530	
<input type="button" value="Delete Selected"/>			

Content Engine logs include information generated by the TCS Content Engine service (TCSCE) about incoming and outgoing calls, codecs in call, call speed, presentation start/stop, Gatekeeper and SIP registration.

It also shows information about the generation of live streaming and live transcoded outputs.

The log will also record reasons for disconnected and rejected calls.

A new log is created every time the Content Engine service restarts. or if the current log exceeds 10MB.

## Content Library logs

The Content Library logs page displays the phperror log. This log includes information about errors reported by the PHP interface.

This log contains PHP execution errors and database exceptions reported by the interface - most can be ignored unless something unexpected has occurred while using the interface.

The phperror log file will roll automatically once it reaches approximately 5MB. You can also click on the Roll Log File button to start a new log file manually.

Server Logs			
Content Library			
<input type="checkbox"/>	File Name	Modified Date	File Size (bytes)
<input type="checkbox"/>	phperror_071030_0.log	October 30 2007 10:04:49.	1320
<input type="checkbox"/>	phperror.log	December 04 2007 03:40:38.	28306
Roll Log File			
Delete Selected			

## Transcoding Engine logs

The Transcode Engine logs include information about offline transcoded outputs. This will include the output size and format, and how long the output took to transcode.

A new log is created every time the TCS Offline Transcode Engine (TCSOT) service is restarted, or if the current log exceeds 10MB.

Transcode Engine			
1 2 3 4 >			
<input type="checkbox"/>	File Name	Modified Date	File Size (bytes)
<input type="checkbox"/>	OT08042302-00.log	April 23 2008 23:16:01.	8911
<input type="checkbox"/>	OT08042301-00.log	April 23 2008 02:24:26.	1519
<input type="checkbox"/>	OT08010802-00.log	January 08 2008 02:03:51.	2332
<input type="checkbox"/>	OT08010801-00.log	January 08 2008 01:31:51.	1138
<input type="checkbox"/>	OT07121802-00.log	December 17 2007 22:03:19.	77
Delete Selected			

## Helper Logs

The Helper logs show information from the Helper Tool service (TCSH) about the transfer of transcoded and dump files to their final storage location. FTP transfer information will appear in these logs.

The Helper logs also show the hinting information for MPEG-4 outputs, and will log the clean-up of files when a conference has been deleted.

A new log is created every time the TCSH service is restarted, or if the current log exceeds 10MB.

Helper			
1 2 3 4 >			
<input type="checkbox"/>	File Name	Modified Date	File Size (bytes)
<input type="checkbox"/>	TCSH08042301-00.log	April 23 2008 23:16:02.	21598
<input type="checkbox"/>	TCSH08042300-00.log	April 23 2008 02:08:58.	69
<input type="checkbox"/>	TCSH08010801-00.log	January 08 2008 02:03:51.	2116
<input type="checkbox"/>	TCSH08010800-00.log	January 08 2008 01:01:01.	69
<input type="checkbox"/>	TCSH07121801-00.log	December 17 2007 22:03:12.	69
Delete Selected			

## About Server Overview

## The Server Overview Page - Content Server Status

The Server Overview page allows administrators to:

- View Content Server Status
  - View Server Disk Space
  - Content Server Information
  - View details of the Media Storage Location
  - Upgrade the Content Server Software
- This page is automatically refreshed every 10 seconds.

### Content Server Status

**Server Mode.** Server mode displays the current status of the Content Server. The default mode is **Online**. In this mode the Content Server can accept calls and transcode outputs.

Other modes include:

**Reloading Configurations.** If Gatekeeper, Advanced H323 or SIP settings have been saved in Site Settings while the Content Server was in call, the Content Server will stop accepting new calls. When the call or calls currently in progress are completed, Site Settings will be updated and Server Mode will automatically change to Online. The administrator may also exit the Reloading Configurations mode by ending all calls manually.

**Idle.** The Content Server will stop accepting new calls and processing new transcoding jobs when the TCS Wizard is running. To exit Idle mode, ensure that you have either fully completed or cancelled the Wizard.

**Offline.** If the Content Engine service is not running, Content Engine status will display a red exclamation mark, and server mode will change to Offline. the Content Server will drop any calls in progress and will not accept any new calls. To exit Offline mode, start the TCS Content Engine service.

**Error.** The Content Server will enter Error mode if it's out of disk space, or if it has lost connection to the NAS.

If the Content Server is out of disk space (5% disk space free), the Content Server will drop any calls in progress and will not accept any new calls or process transcoding jobs. To exit Error mode, free up disk space on the drive or drives.

If the Content Server was on a NAS, but cannot contact it, check the NAS and ensure that it is connected to the network.

**Content Engine Status.** Displays the current Content Engine service status. A green tick is displayed if the service is running. If the service is not running, a red exclamation mark and the last time and date the service contacted the database is displayed.

**Transcode Engine Status.** Displays the current Transcode Engine service status. A green tick is displayed if the service is running. If the service is not running, a red exclamation mark and the last time and date the service contacted the database is displayed.

**Current Calls.** The graphic displays beige placeholders for calls with live streaming outputs and orange placeholders for calls with on demand outputs only.

**Call list.** Displays a list of live conference names. Click on a conference name to go to the Edit Conference page for this call.

**Currently transcoding.** A graphic indicates if transcoding is currently taking place.

**Transcoding Job List.** Displays a list of conference names with outputs that are currently being transcoded. Click on a conference name to go to the Edit Conference page for this conference.

**End all Calls.** This button is displayed if there are current calls in progress. Click on this button to end all calls.

## The Server Overview Page II

**Server Disk Space.** The information displayed here includes total available disk space, free disk space and the percentage of free space left on disks. The disks for which this information is available include C:/ and E:/If the default media storage location is on a NAS, disk space on the NAS is also displayed.

The graphic space indicators will turn red if disk space is less than 10%. If less than 5% space remains on disk, the Content Server will drop any calls in progress and will not accept any new calls or process transcoding jobs.

**Content Server Information.** This section displays the IP address of the Content Server, its serial number, the installed software version and build number, and the installed option keys.

Server Disk Space			
Path	Total Disk Space	Free Disk Space	Percentage Free
C	15 GB	3 GB	<div><div></div></div> 23%
E	204 GB	48 GB	<div><div></div></div> 24%

Content Server Information	
IP Address	192.168.1.100
Device Serial Number	123456789
Software Version	TANDBERG Content Server v3.2
Installed Option Keys	5 Recorded Calls 2 Live Broadcast

Media Storage Location	
To change the current media storage location, log in to the TANDBERG Content Server via remote desktop and run the TCS NAS Wizard.	
Media Storage Location: E:	

Upgrade Software - this section is for upgrading your current software options	
Add Option Key	<input type="text"/> <input type="button" value="Add Option Key"/>
Restart Service	<input type="button" value="Restart Service"/>

**Media Storage Location.** The default media storage location is on the local E drive. If the media location has been changed to an external location, the external location will be displayed here.

This section is described in detail in the Media Storage Location section.

**Upgrade Software.** The Content Server software can be upgraded by adding option keys provided by authorized TANDBERG resellers or partners. After putting in the option key click on the Restart Service button to restart the Content Server for the installed option key to take effect.

## About Media Storage Location

The default location for your media files is drive E: on your TANDBERG Content Server. You may change this location to store files on a Network Attached Storage (NAS) by using the TCS NAS Wizard.

The NAS Wizard gives you the ability to store your media in an external location, which means that your recording capacity will not be limited by the disk storage on the Content Server.

Your media will be recorded to a temporary directory on the Content Server first, and then automatically moved to the NAS. Your conferences will be streamed from the NAS using the Content Server's streaming media server or another external streaming media server that you specify.

We recommend NAS devices which are built on the Windows Storage server and are Windows Hardware Quality Lab certified. The file sharing protocol used by the Content Server to the NAS is Microsoft SMB.



For best performance, we recommend that the NAS you use for storing Content Server media files is a device dedicated to media storage.

Running applications such as domain controllers, databases or external streaming servers on the NAS used for Content Server media file storage may result in errors and is not recommended.

## Changing the Media Storage Location - prerequisites

Before you start, make sure that:

- You have a current backup of your Content Server.
- The Content Server is added to same domain as the NAS (see the section on Authentication for details on adding the Content Server to a domain).
- Choose or create an account in the domain that IIS on the Content Server will use to access the share on the NAS. This domain account needs to have both administrative rights on the Content Server and permissions over the NAS share. This domain account may be called anything you want, but in this document we will refer to it as MYDOMAIN\TCSNASUSER.
- You have enough time to complete the operation. The NAS Wizard will move all valid media files (which are referenced by your database) from the local drive to the external storage location. This may take some time, depending on how much existing media you have recorded on E drive. Any orphaned files in E:\data folder (media files which are not associated with conferences) will be deleted.

## Steps Required for Changing the Media Storage Location

To change the media storage location from the default E drive on the Content Server to the NAS:

1. [Configure your NAS](#)
2. [Run the NAS Wizard from Remote Desktop on the Content Server](#)

To change the media storage location back from the NAS to the default E drive location (or to another NAS):

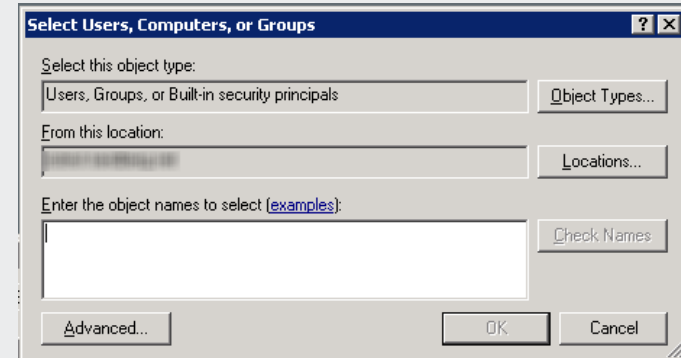
3. [Run the NAS Wizard from Remote Desktop on the Content Server](#)

# Changing Media Storage Location

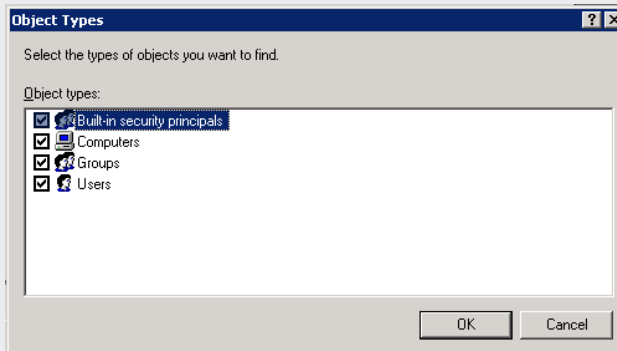
## Configuring the NAS

- 1 Before you start, read the [Changing the Media Storage Location - prerequisites](#) section.
  - Remote desktop into your NAS.
  - Set up a shared folder.

- 2 Set permissions on the share to allow the Content Server and MYDOMAIN\TCSNASUSER full control over the share:
  - Right-click on the share and select [Sharing and Security...](#)
  - Click on [Permissions](#)
  - Click [Add](#)
  - Click [Object Types](#).



- 3 Select the Checkbox for Type – [Computers](#).



- 4 Enter [<Content Server Server Name>](#) (as registered in the domain) and the [TCSNASUSER](#) account name. Click on [Check Names](#) and [OK](#).
- 5 Give the Content Server and MYDOMAIN\TCSNASUSER full control over the share.
- 6 Click on the [Security](#) tab.  
Repeat steps 2–5 to give the Content Server and MYDOMAIN\TCSNASUSER full control of the NAS share under the [Security Settings](#) tab.

# Changing Media Storage Location

TANDBERG CONTENT SERVER  
ADMINISTRATOR GUIDE

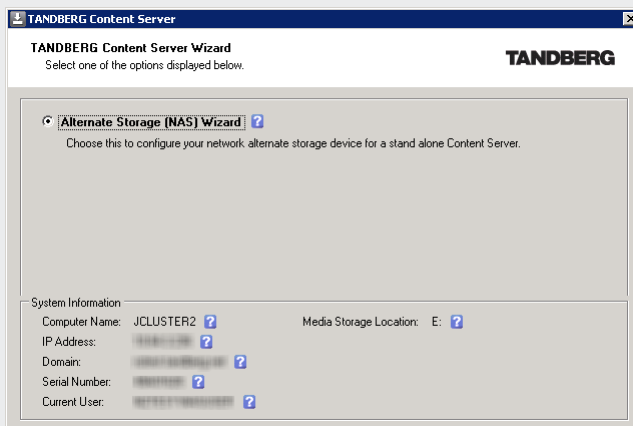
## Changing to Alternate Storage Location

- 1 Before you run the NAS Wizard, read the [Changing the Media Storage Location - prerequisites](#) section and configure your NAS.

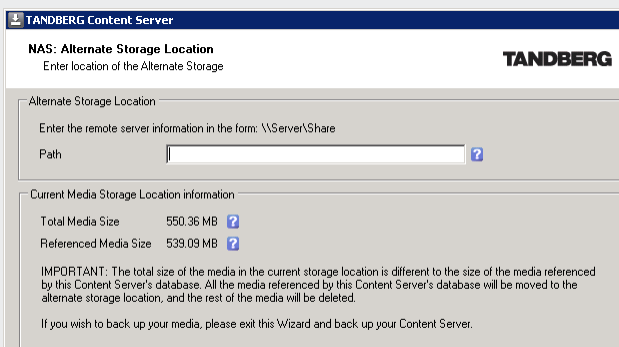
- 2 Then log in as the default administrator to the Content Server via Remote Desktop and add MYDOMAIN\TCSNASUSER to the local administrators' group. Log out. Log back in via Remote Desktop to the Content Server as MYDOMAIN\TCSNASUSER.

- 3 Go to **Start Menu > All Programs > TANDBERG > TCS > TCS NAS Wizard**, or double-click the **TCS NAS Wizard** shortcut on the desktop.

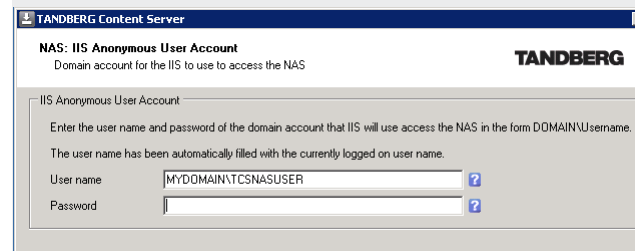
- 4 Click on **Next** to start the NAS Wizard. Only one option is available and highlighted: **Alternate Storage NAS Wizard**. Check the information displayed on screen and click **Next** to continue.



- 5 Enter the new storage location information in the format: \\NASName\ShareName\.  
NASName must be entered as the DNS name, not IP address, otherwise the NAS Wizard will fail.  
Total Media Size indicates the size of the media in your E:\data folder, Referenced Media Size shows the size of files which are associated with conferences.



- 6 At the IIS Account prompt, enter the TCSNASUSER password (the username will already be prefilled). If you are running the NAS Wizard under another domain account, you need to specify the TCSNASUSER name and password here.



- 7 Click **Next** at the Final Configuration screen to configure your Content Server and move your existing media files to the NAS location. This may take some time, depending on how much existing media you have recorded on E drive. Any orphaned files in E:\data folder (media files which are not associated with conferences) will be deleted at this stage.

- 8 When the process has been completed, click on **Finish** to exit the NAS Wizard. No server restart is necessary.

- 9 NAS Wizard logs are available in E:\logs\SetupUtility. To check your new media location at any time, select **Server Overview** from the **Administrator Settings** menu.

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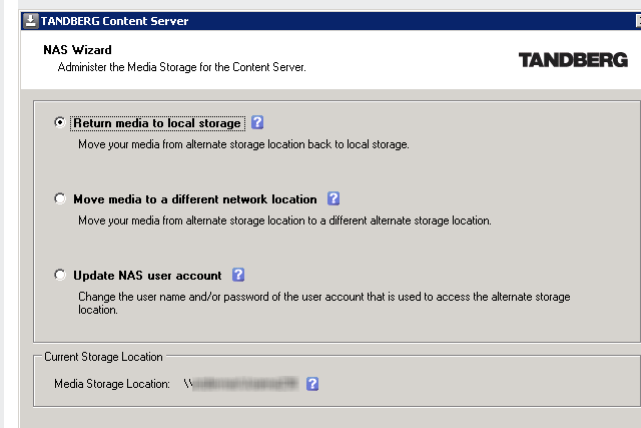
## Changing Back to the local Media Storage Location

- 1 If your default Media Storage Location is on the NAS and you would like to move it back to the default E drive, log in as TCSNASUSER via Remote Desktop to the Content Server.

The NAS Wizard will calculate the media size on the NAS and will not let you complete this process if the media size is larger than the space available on E drive. Check the data folder size on the NAS first and delete some conferences if your NAS data folder is larger than space available on E drive.

- 2 Go to **Start Menu > All Programs > TANDBERG > TCS > TCS NAS Wizard**, or double-click the **TCS NAS Wizard** shortcut on the desktop.

- 3 Select **Return media to local storage** option.



- 4 Click **Next** at the Final Configuration screen to configure your Content Server and move your existing media files from the NAS back to the E drive. This may take some time, depending on how much existing media you have recorded on the NAS. Only media files which are referenced by the database of the Content Server you are running this Wizard on will be moved back to the Content Server. Any files that are not in use by this Content Server will not be affected.

- 5 When the process has been completed, click on **Finish** to exit the NAS Wizard. No server restart is necessary.

- 6 NAS Wizard logs are available in E:\logs\SetupUtility. To check your new media location at any time, select **Server Overview** from the **Administrator Settings** menu.

# Changing Media Storage Location

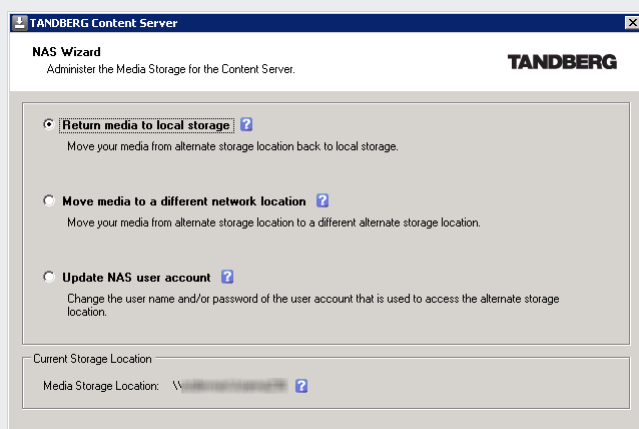
## Changing from one alternate storage location to another

- 1 If your default Media Storage Location is on the NAS and you would like to move it to another NAS, read the [Changing the Media Storage Location - prerequisites](#) section and configure your second NAS location (see also [Configuring the NAS](#)).

The NAS Wizard will calculate the media size in the original media storage location and will not let you complete this process if the media size is larger than the space available on the NAS you are moving it to. Check the data folder size first and delete some conferences if your source data folder is larger than space available on the destination NAS.

- 2 Log in as MYDOMAIN\TCSNASUSER via Remote Desktop to the Content Server. Go to **Start Menu > All Programs > TANDBERG > TCS > TCS NAS Wizard**, or double-click the **TCS NAS Wizard** shortcut on the desktop.

- 3 Select **Move media to a different network location** option.



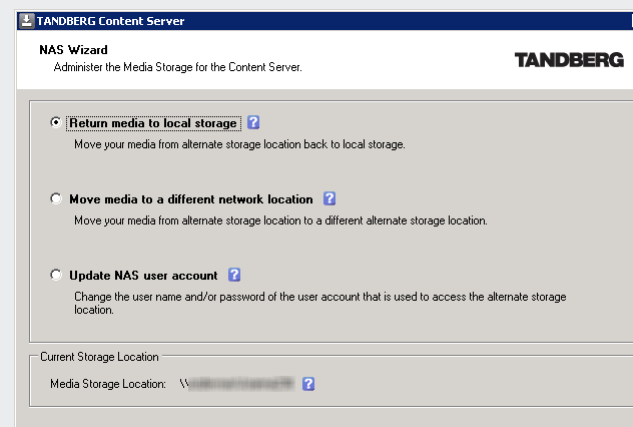
- 4 Follow the process as for [Changing to Alternate Storage Location](#). Please note that only media files which are referenced by the database of the Content Server you are running this Wizard on will be moved. Any files on the NAS share that are not in use by this Content Server will not be affected.

## Updating the TCSNASUSER account

- 1 If the password for the domain account that the Content Server uses to access the NAS share has changed, or if you want to use another domain account, you will need to use the NAS Wizard to update the Content Server.

- 2 Log in as MYDOMAIN\TCSNASUSER via Remote Desktop to the Content Server. Go to **Start Menu > All Programs > TANDBERG > TCS > TCS NAS Wizard**, or double-click the **TCS NAS Wizard** shortcut on the desktop.

- 3 Select **Update NAS user account** option and follow the prompts to enter the new password or enter a new user and password.



## About Windows Server

Selecting this menu item opens up the Windows Server administration page in a separate window.

This page can also be accessed by typing

<https://<ContentServerIPAddress>:8098>  
in the Web browser URL field.

The Windows Administration site can be used for:

- Changing the Administrative password and updating Date and Time settings
- Creating local user accounts.
- Setting up backup options and restoring the Content Server.

Close the window when finished.



The administrator needs to be using Microsoft Internet Explorer to use this menu item.

Some Internet Explorer security settings may prevent the necessary ActiveX controls from running on this page. This may result in an inability to access the Windows Server administration site or some of the tools on the site. To fix the problem, add the URL of the Windows Server administration site to Trusted Sites in your browser.

## The Windows Server Page



# TANDBERG Content Server

## Conference Setup

Read the Conference Setup section for information on:

- Making calls from the Content Server Web Interface.
- Using and managing Recording Aliases
- Managing access to Conferences
- Editing Conference Metadata.

# Initial Steps When Creating a Conference

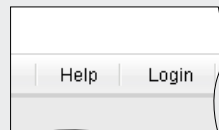
## About Conference Setup

The TANDBERG Content Server enables users with **Editor** and **Administrator** privileges to record video calls and to edit their recorded content.

Editors and administrators need to log in to the Content Server to create and edit their conferences.

## Logging In

- 1 Click the **Login** button at the top right of the screen.

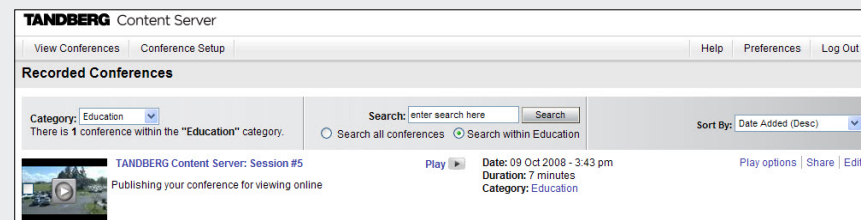


- 2 Depending on your authentication method, one of the following screens will be displayed.

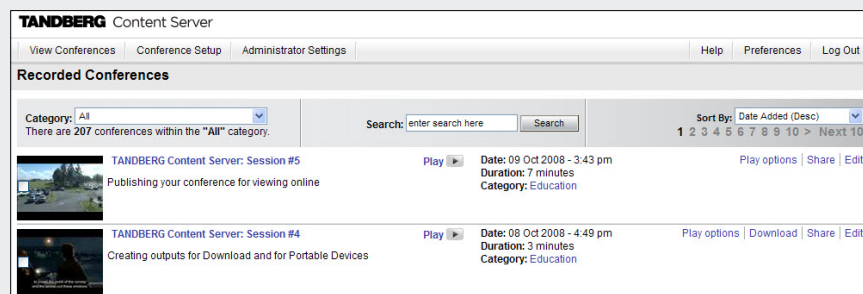


Enter your username and password details to authenticate, as indicated in the [Prompting Users to Log in](#) section of this manual.

- 3 You will see a screen similar to this if you are a conference owner and have the ability to record calls and edit your recorded content.



- 4 You will see a screen similar to this if you have administrative privileges. The additional Administrator settings menu is available.



# Creating Conferences

## About Creating a Conference

Use this menu item to create Ad Hoc conferences from the Content Server interface. A Scheduled Conference will end an Ad Hoc call.

In the **Conference Setup** menu in the menu bar, choose the **Create Conference** option. The screen will then look like this.

## The Create Conference Settings

**Create Conference**

**Call Information**

Recording Alias: -- Click to select --  
Dial Number:   
Bandwidth (kbps): 768  
Call type: H.323

**Conference Permissions**

Users: ☐ Allow access to all users

Editors:

Local Format  
Users: MACHINENAME\user.name

Domain Format  
Users: DOMAINNAME\user.name Groups: @group.name

LDAP Format  
Users: user.name Groups: @group.name

Password:

**Conference Metadata**

Name:   
Description:   
Speaker:   
Location:   
Copyright:   
Keywords:   
Category: -- No Category Selected --

**Call Information.** These settings include **live** and **non-live** Recording Aliases, the Dial Number, Bandwidth (kbps) and Call Type Call Settings.

**Conference Permissions.** Here you define who should be granted edit rights and who should be granted viewing rights to the conference as well as the option to enter a conference password.

**Conference Metadata.** Metadata gives you the possibility to include such things as:

- The name of the conference that participants will see.
- Details about the conference.
- Name or names of the conference speakers.
- Where the conference takes place.
- Any copyright information about the conference.
- Any keywords that can be used when searching for the conference.
- A category selected from the pull down list for this conference.



## Templates Determine Outputs!

The template specified in the **Recording Alias** determines the outputs for each recorded conference. The call can have a live streamed component or be for on demand viewing only, that is, have non-live outputs.

Please note that all calls are recorded by default.

It is the templates attached to the Recording Aliases that determine which calls have live and/or on demand streaming options.

Check the Template Output Description for the selected Recording Alias for a description of the conference outputs.

## The Call Information Settings

**Call Information**

Recording Alias: Default OnDemand only \*

Dial Number: \*

Bandwidth (kbps): 768

Call type: H.323

**Template Output Description:**  
On Demand: Switching Windows Media Medium (Offline transcoded)

**Recording Alias.** Choose a **Recording Alias** from the drop down list. A maximum of five calls can be active at any one time and two of these can be streamed live.

**Template Output Description.** Displays the Viewer outputs, Live and On Demand with the layout, format and size.

Also displays the Downloads for portable devices and for playback on the User's computer.

**Note:** This gives the Owners the ability to check that they have the correct **Recording Alias** selected for the call.

**Dial Number.** Enter the number of the endpoint you are calling. The address can be in the format of an IP address, H.323 ID or E.164 alias.

H.323 ID and E.164 alias dialing requires a gatekeeper.

**Call Settings.** By default the **Bandwidth** is set to 768 and Call type is set to H.323. The bandwidth can be changed with available options from the Call Configuration used with the Recording Alias.

The **Call Type** can be H.323 or SIP if the Content Server is registered to a SIP registrar.

## The Conference Permissions Settings

Users are entered into the Conference Permissions page to enable them to view or edit conferences.

Enter user or group names in the **Editors** or **Users** text fields one per line or separated by a semicolon, in the following formats:

**Adding users under Local authentication:**

Users must be entered in this format:

**MACHINENAME\user.name**

Local user accounts must be created on the Content Server first (see [Adding Users](#))

Adding local groups is not supported.

**Adding users under Domain authentication:**

Users must be entered in this format:

**DOMAINNAME\user.name** or

**DOMAINNAME\user.name:Display name**

Groups must be entered in this format:

**@group.name**

**Adding users under LDAP authentication**

Users must be entered in this format: **user.name** or **user.name:Display name**


Groups must be entered in this format:

**@group.name**

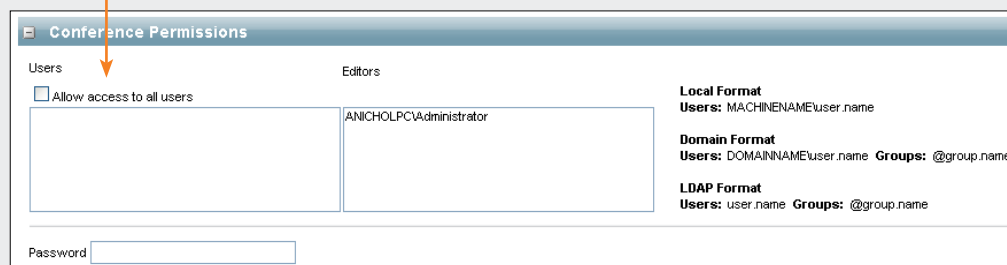
**Editors.** Editors can edit and delete a conference.

**Users.** Users can view the conference.

Entry in this field is disabled if **Allow access to all users** checkbox is selected.

 **Users** have access to view conferences only.

**Editors** can edit conference permissions and metadata, use the **Content Editor** to change the conference and add further outputs to a completed conference. They can also delete conferences they are editors of.



**Allow access to all users.** If this checkbox is selected AND **Guest access** is enabled in **Site Settings**, all guests can view the conference.

If **Allow access to all users** checkbox is selected AND **Guest access** is not enabled in **Site Settings**, all authenticated (logged in) users can view the conference.

**Password.** Enter a password to restrict streaming access to this conference and the ability to download content.

If no password is entered, then users who can view the conference list, will be able to view the conference and download any available content.



## The Conference Metadata Settings



The **Conference Metadata** will be retrieved from the recording alias that has been selected in the Call Information section of the screen.

When a call is placed, additional metadata on screen will include: **Date**, **Duration** and **URL** information.

After you have entered the required information click the **Place Call** button to start the call or click the **Return** button to cancel making the call and leave the screen.

**Copyright.** Enter any copyright information about the conference.

**Keywords.** Enter any keywords that can be used when searching for the conference.

**Additional metadata** displayed for a live call includes: date, duration and URL.

**Duration.** The length of the recorded conference will be displayed (rounded and actual time is displayed, in the format hh:mm:ss). Any edited conference will display the new length if the In and/or Out Points have been changed.

**URL.** The URL to the conference will be displayed at creation time of the conference.

**Name.** The name of the conference that participants will see.

**Description.** Details about the conference to be displayed beneath the **Name** in the **Conference** list.

**Speaker.** Name or names of the conference speakers.

**Location.** Where the conference takes place.

**Category.** Select the category from the pull down list for this conference.

**Date.** The date and time of the start of the conference will be displayed at creation time of the conference.

Live calls only

# Call Information: When in a Call

## About Call Information

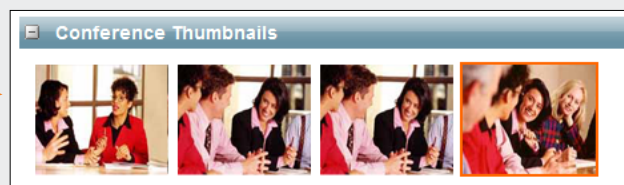
After the **Place Call** button has been clicked on, the call information will be updated with current information about the call.

**Conference Thumbnails.** If the call has a live component, beneath the Call Information, thumbnails will be displayed. They are created at 5 seconds, 1 minute, 5 minutes, 30 minutes and 1 hour.

A call without a live component will not have any Thumbnails created until the call is being processed for on demand viewing.

## The Call Information Display

Call Information	
Remote System	9077
Call Protocol	H323
Call Speed	768 kbps
Recording Alias Name	102 Default Live and OnDemand
Video Information	H.264 w720p @ 704 kbps
Audio Information	G.722 @ 64 kbps
Dual Stream	Disabled
Encryption	Off



**Remote System.** The endpoint or device the Content Server is connected to.

**Call Protocol.** SIP or H.323

**Call Speed (kbps).** The call speed for the recording.

**Recording Alias Name.** The recording alias that was used in the call.

**Video Information.** Displays the protocol, i.e. H.264, for the call, the data rate of the video and the call format.

**Audio Information.** Displays the protocol, i.e. G.722, and data rate for the audio in the call.

**Dual Stream Information.** Displays the status of the dual, on or off, and the format.

**Encryption Information.** Displays the status, on or off, and the algorithm used if it is on.

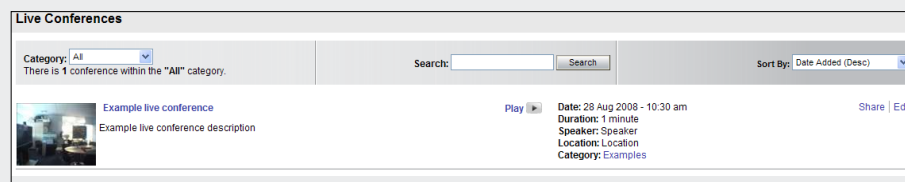
## About Ending Calls

There are two ways of ending a call:

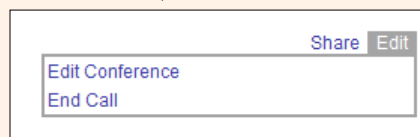
- You can end a live call by hanging up the call at the endpoint.
- You can end the call from the Web Interface of the Content Server. This method will give you information about the call, after it has completed, e.g. Thumbnails, Permissions and Metadata and enable editing of the conference for viewing.

## Ending the Call from the Web Interface

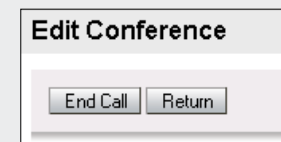
- 1 To end a call from the Content Server Interface:
  - list the Live Conferences from the **View Conferences** menu and click the **Edit** link for the conference that you want to end



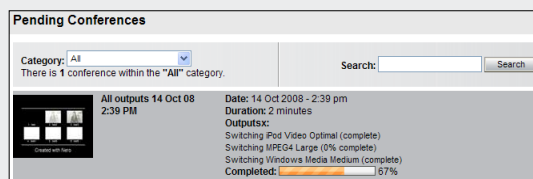
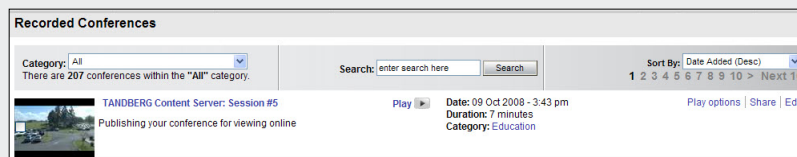
- from the Edit link of the Live Conference, choose **End Call**.



- 2 Click on the **End Call** button at either the top or the bottom of the screen.



- 3 You will see the **Call Status** change to **Ending Call** and then the conference will be listed in the **Recorded Conferences** list. The conference will also be displayed in the **Pending Conferences** list if further outputs need to be created.



The **Recorded Conferences** list will display a small icon on the right hand side of the screen indicating that this conference has more outputs to be transcoded. The icon will be to the left of **Edit**, **Download** and **Play**. What icons are displayed depends on the Template used in the call.

## Dialing in

Users can record their calls by dialing in to the Content Server from H.323 devices.

It is possible to make calls by dialing:

- **The Content Server IP address**—this feature does not require the Content Server to be registered to the gatekeeper.
- **The Content Server system name or E.164 alias**—this feature requires the Content Server to be registered to the gatekeeper.
- **The H323 ID or E.164 alias of a recording alias**—this requires the Content Server to be registered to the gatekeeper.
- **The Content Server SIP URI**—this feature requires the Content Server to be registered to a SIP registrar.
- **The SIP URI of a recording alias**—this requires the Content Server to be registered to a SIP registrar.

## Concurrent Calls

It is possible to make up to 5 concurrent calls, of which two can be broadcast live.

The same recording alias can be used for the two live calls and another one, with no live component, can be used for the other three calls. Also, 5 different recording aliases can be used for the 5 calls.

## A Recording Conference Logo Displayed at Far End

Once connection to the Content Server has been established, a Recording conference poster will be displayed at the endpoint.

If the template has a live output, the call will be streamed live and available for viewing on demand.

If the template does not have a live output, it will be available for on demand viewing. Calls made from endpoints to the Content Server begin recording once the call setup is complete and the Content Server begins receiving audio and video from the endpoint.



## About TMS Scheduling

It is possible to schedule calls to be recorded by the Content Server through TMS (TANDBERG Management Suite).

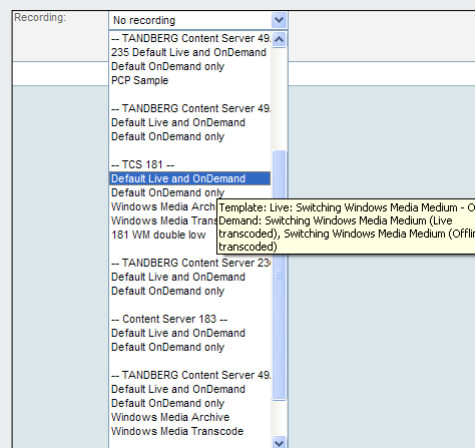
In order to use TMS to book recordings on the Content Server, you need to:

1. Enable the API in **Site Settings > API**
2. Add the Content Server to TMS

If the Content Server is registered to a gatekeeper in Gateway mode, users booking a conference in TMS 11.8 and above can choose from a range of System Aliases and their Personal Recording Aliases. No further special configuration is necessary on the Content Server side.

For more information on TMS integration, refer to the TANDBERG Management Suite Administrator Guide or contact your TANDBERG representative or authorized reseller.

## Scheduling Calls with TMS



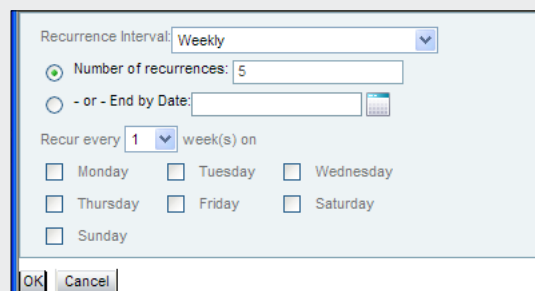
A user who logs in to TMS 11.8 or above with their user name will see their own Personal Recording Aliases and any System Aliases in the Recording dropdown menu.

The screenshot shows the Recording dropdown menu in TMS 12.0, with aliases arranged by Content Server. .

## Creating a Dedicated TMS Alias

If the Content Server is registered to a gatekeeper in Terminal mode, only System Aliases and dedicated Personal Aliases (with the owner set to api-admin) will be available for recording conferences.

1. From the Add Users page on the Content Server, add a new user with the username **api-admin**. The user needs to have Administrator privileges.
2. Create a new recording alias e.g. TMS Alias, with the owner set to: **api-admin**. Do NOT check the System Alias checkbox—the TMS alias must be a Personal alias.
3. You need to create two live and three non-live dedicated TMS-only Recording Aliases. Only those aliases will be available for booking by TMS.



TMS 11.8 and above offers full support for Recurrent meetings. The Screenshot shows the user booking a series of recurrent meetings through TMS.

Current meetings that are recorded with the TANDBERG Content Server will be displayed in the Live Conferences List when they are occurring and when completed will be available from the Recorded Conferences List.



Content Server v.3.x is backwards compatible with TMS 11.7 for booking a Transcoding call, using a dedicated TMS-only Recording Alias. Archiving call support is not available.

## About Recording Alias Options

Recording Aliases are used to record calls and contain all information about how the call is handled.

The default TANDBERG Content Server installation has two default system aliases available.

The two default aliases are:

- Default Live and OnDemand
- Default OnDemand only

Multiple concurrent calls can be made using both those aliases but of the five concurrent calls, up to two can be live.

The recording alias determines:

- The call type—live or on demand.
- The outputs, based on the recording template and call configuration specified in the alias.
- Access to the live and recorded conference.
- Conference password (optional).

All conference metadata, such as name, description, speaker, location, copyright and category specified in the alias will be automatically applied to the conference and can be edited before the call is placed and also after the call has finished.

Calls made with the same alias will have the same default settings, but different conference URLs.

## Recording Alias Options and User Privileges

## Recording Aliases

<input type="checkbox"/> Name ^	H323 Alias	E164 Alias	Sip Uri
<input type="checkbox"/> 102 Default Live and OnDemand <a href="#">Edit</a>	LiveTANDBERG-2AB501	1020001	1020001@tandberg.com
<input type="checkbox"/> 102 Default Live and OnDemand 2 <a href="#">Edit</a>	LiveTANDBERG-2AB5012	10200012	10200012@tandberg.com
<input type="checkbox"/> 102 Default OnDemand only <a href="#">Edit</a>	OnDemandTANDBERG-2AB501	1020007	1020007@tandberg.com
<input type="checkbox"/> api <a href="#">Edit</a>	api	1029077	
<input type="checkbox"/> MPEG4 <a href="#">Edit</a>	MPEG4	1029066	1029066@tandberg.com
<input type="checkbox"/> Ross <a href="#">Edit</a>	Ross	1029033	

## Recording Aliases

Name ^	H323 Alias	E164 Alias	Sip Uri
MPEG4 <a href="#">Edit</a>	MPEG4	1029066	1029066@tandberg.com
Ross <a href="#">Edit</a>	Ross	1029033	

## Recording Aliases

You have no Recording Aliases to display.

The recording alias options are available from the **Conference Setup** menu and only for users with administrator or owner privileges.

By choosing the recording alias options an administrator will see a screen like the one shown here.

For the same aliases, an owner (a user with privileges to make calls) will see only their personal alias or aliases, if the administrator has set them up with owner privileges for an alias.

Another owner (a user with privileges to make calls) may see no aliases at all, if the administrator has not set them up with owner privileges for an alias.

Aliases can be sorted according to their column title in both ascending and descending order.

The number of aliases displayed on a page can be 5, 10, 20, 50 or 100.

Navigating between pages is consistent with the view conference screens.

## About Creating New Aliases

Only administrators of the TANDBERG Content Server can create recording aliases.

Click the **Add Recording Alias** button on the screen to create a new recording alias.

## An Overview of the Options

**Recording Aliases**

<input type="checkbox"/>	Name	
<input type="checkbox"/>	19thOctober	<a href="#">Edit</a>
<input type="checkbox"/>	Default Live and OnDemand	<a href="#">Edit</a>
<input type="checkbox"/>	Default OnDemand only	<a href="#">Edit</a>
<input type="checkbox"/>	Demo	<a href="#">Edit</a>
<input type="checkbox"/>	Labour VWeekend	<a href="#">Edit</a>
<input type="checkbox"/>	Live/OD Remote Joined MPEG4 Large	<a href="#">Edit</a>

[Delete Selected](#) [Add Recording Alias](#)

**Add Recording Alias**

[Save](#) [Return](#)

---

**Recording Alias**

Name

System Alias ☐

Owner

---

**Properties**

**Settings**

**Default Conference Permissions**

**Default Conference Metadata**

[Save](#) [Return](#)

**Recording Alias.** Specify the name for the recording alias to display in the list of aliases and when creating a conference. Select if this is a system alias. Select the owner for the alias. The owner will be able to edit the alias and select it when creating an ad hoc conference from the interface.

**Properties.** Lets you create a unique H.323 ID, a unique E.164 alias.

**Settings.** Used to select the recording template and the call configuration to use with this alias.

**Default Conference Permissions.** Used to specify the users (viewers) and editors of the conference. Also assign a password to the conference.

**Default Conference Metadata.** Used to specify information about the conference, including name, description, speaker, location, copyright, keywords and category.

# Creating a New Recording Alias

## About Recording Aliases

Owners can edit their recording aliases and they will be displayed in the **Recording Aliases** page from the **Conference Setup** menu.

Administrators can see and edit all properties of all aliases. Owners can only see and edit selected properties of their own aliases.

**System vs Personal.** If you select the **System Alias** checkbox, the alias will be available for all users for dialing out from the Create Conference page. If you do not select the **System Alias** checkbox, the Alias becomes a Personal alias, so it will only be available on the Create Conference page to the Owner of that Alias and also from the TMS Recording list of Aliases when an Owner of a Recording Alias logs into TMS.

## An Overview of the Options

The screenshot shows a form titled "Recording Alias" with three fields: "Name" (a text input field), "System Alias" (a checkbox), and "Owner" (a dropdown menu). Three orange arrows originate from the right side of the page: one points to the "Name" input field, one points to the "System Alias" checkbox, and one points to the "Owner" dropdown menu.

**Name.** Enter a meaningful name for the recording alias as this will display in the list of recording aliases as well as in the drop down list when creating an ad hoc conference.

This is also important for TMS calls as the recording alias will need to be identified by the name given here.

**System Alias.** Select the Owner of the Recording Alias from the drop down list. The Owner will be able to edit conferences created using the alias. If it is a Personal alias only the Owner will be able to edit and make calls with the alias.

**Owner.** Select the Owner of the Recording Alias from the drop down list. The Owner will be able to edit conferences created using the alias. If it is a Personal alias only the Owner will be able to edit and make calls with the alias.



## About Specifying Properties

## Types of Aliases

**Live streaming vs. non-live streaming.**

Recording aliases can have a live output or just on demand outputs.

**System vs Personal.** If you select the **System Alias** checkbox, the alias will be available for all users for dialing out from the **Create Conference** page. If you do not select the **System alias** checkbox, the alias becomes a personal alias, so it will only be available on the **Create Conference** page to the owner of that alias.

The orange asterisk means that you must specify at least one of the following:

- H.323 ID
- E.164 Alias
- SIP Address (URI)

## An Overview of the Options

**Properties**

\* Choose at least one of the following

H.323 ID	<input type="text"/>	*
E.164 Alias	<input type="text"/>	*
SIP Address (URI)	<input type="text"/>	*
SIP Display name	<input type="text"/>	

**H.323 ID.** Enter a unique H.323 ID to select this Recording Alias when another system calls the Content Server. The Content Server must be registered with a Gatekeeper to use an H.323 ID. If the Content Server is registered to the gatekeeper as gateway, this alias needs to be used with a prefix specified in **Site Settings**.

**E.164 Alias.** Enter an E.164 Alias to select this Recording Alias when another system calls the Content Server. The Content Server must be registered with a Gatekeeper to use an E.164 Alias. If the Content Server is registered to the gatekeeper as gateway, this alias needs to be used with a prefix specified in **Site Settings**.

**SIP address (URI).** Enter a SIP Address (URI) to select this Recording Alias when another system calls the Content Server. The Content Server must be registered with a SIP Registrar to use a SIP URI.

**SIP Display name** (for SIP registration). Enter a Display Name for the Content Server's SIP Address (URI). This is presented as a description of the SIP URI by the SIP Registrar to other systems. It is often a full name or system name.

# Specify Settings

## About Specifying Settings

The combination of **Template** and **Call Configuration** settings determines the outputs of your call made with this recording alias.

## An Overview of the Options

The screenshot shows a 'Settings' dialog box with two dropdown menus. The 'Template' dropdown is set to 'Windows Media PoP Live and On Demand'. The 'Call Configuration' dropdown is set to 'System Call Configuration'. To the right of these dropdowns is a section titled 'Template Output Description:' which contains the text: 'Live: Two videos Windows Media Medium' and 'On Demand: Two videos Windows Media Medium (Live transcoded)'. Three orange arrows point from the surrounding text blocks to the 'Template' dropdown, the 'Call Configuration' dropdown, and the 'Template Output Description' section.

**Template.** Select an output Template for the Recording Alias. Templates can be created, edited, and deleted by Administrators on the Templates page. Check the Template Output Description to ensure that appropriate outputs will be generated when a conference uses this Recording Alias.

**Template Output Description.** Displays the Viewer outputs, Live and On Demand with the layout, format and size that will be created by the Recording Alias.

Also displays the Downloads for portable devices and for playback on the User's computer.

**Note:** This gives the Owners the ability to check that they have the correct template selected for the Recording Alias.

**Call Configuration.** Choose the call configuration file to use with this alias.

# Specifying Default Conference Permissions

## Entering User Names

Enter user or group names in the editors or users text fields one per line or separated by a semicolon, in the following formats:

**Adding users under Local authentication:**  
Users must be entered in this format:  
`MACHINENAME\user.name`

Local user accounts must be created on the Content Server first (see [Adding Users](#))

Adding local groups is not supported.

**Adding users under Domain authentication**  
Users must be entered in this format: `DOMAINNAME\user.name` or `DOMAINNAME\user.name:Display name`  
Groups must be entered in this format: `@group.name`

**Adding users under LDAP authentication**  
Users must be entered in this format: `user.name` or `user.name:Display name`  
Groups must be entered in this format: `@group.name`

**Editors.** Editors can edit and delete a conference.

**Users.** Users can view the conference.

Entry in this field is disabled if **Allow access to all users** checkbox is selected.

Editors entered into the **Recording Alias** will be able to edit the resulting Conferences created using the **Recording Alias**.

If no **Editors** are entered, either the administrator or the owner of the Recording Alias must edit the conference when it has concluded to add in more editors.

## An Overview of the Options

Select **Allow access to all users** to give all users permission to view this conference. If Guest Access is enabled in Site Settings guests (unauthenticated users) will also be able to view the conference

### Scenarios:

- If this checkbox is selected AND **Guest access** is enabled in **Site Settings**, all guests can view the conference.
- If **Allow access to all users** checkbox is selected AND **Guest access** is not enabled in **Site Settings**, only authenticated (logged in) users can view the conference.

A **Password** can be used to further restrict who may view the conference. All users specified in the Users access list above will be able to see the conference on the Recorded, Live, and Pending Conferences pages, but only those that know this password will be able to view it.

# Specifying Default Conference Metadata

## About Default Conference Metadata.

The Metadata entered into a Recording Alias is copied into the Conference Metadata for a call that uses the Recording Alias.

Owners of the Recording Alias can change the contents of the fields at any time.

Editors can change the Metadata of the Conference only after the call has concluded.

## An Overview of the Options

The screenshot shows a web form titled "Default Conference Metadata". It contains the following fields and controls:

- Name:** A single-line text input field.
- Description:** A multi-line text area.
- Speaker:** A single-line text input field.
- Location:** A single-line text input field.
- Copyright:** A single-line text input field.
- Keywords:** A single-line text input field.
- Category:** A dropdown menu currently showing "-- No Category Selected --".
- Buttons:** "Save" and "Return" buttons at the bottom left.

Orange arrows point from descriptive text boxes on the right to each of these fields.

**Conference Name.** The conference name displayed when conferences are listed. If no name is entered, one will be created at time of recording the conference. The default created conference name is made up of the recording alias name and the date/time of the call.

**Description.** Enter a description for the conference as this also appears under the name when conferences are listed in the interface.

**Speaker.** Enter the name of the main presenter of the conference as this is displayed on the conference list in the interface.

**Location.** Enter the location of the conference.

**Copyright.** Enter any copyright information applicable.

**Keywords.** List keywords as these are also searchable from the [View Conferences](#) menu items.

**Category.** Choose a category that this conference best fits. This enables a user to list like conferences in the interface.

# Editing Recording Aliases

TANDBERG CONTENT SERVER  
ADMINISTRATOR GUIDE

## Who Can Edit What?

Administrators can edit all recording aliases but owners can only edit some settings in their own aliases.

## What Administrators Will See

**Recording Aliases**

Name	Edit
19thOctober	Edit
Default Live and OnDemand	Edit
Default OnDemand only	Edit
Demo	Edit
Labour Weekend	Edit
Live/IO Remote Joined MPEG4 Large	Edit

Delete Selected Add Recording Alias

**Edit Recording Alias**

Save Save As Return

**Recording Alias**

Name: Default OnDemand only

System Alias: ☒

Owner: System Administrator (Administrator)

**Properties**

**Settings**

Template: Windows Media Single On Demand Only

Template Output Description: On Demand: Switching Windows Media Medium

Call Configuration: System Call Configuration

**Default Conference Permissions**

**Default Conference Metadata**

Name:

Description:

Speaker:

Location:

Copyright:

Keywords:

Category: -- No Category Selected --

Save Save As Return

This screen is similar to the screen you see when creating new recording aliases. If you are an administrator you may edit all there is to edit.

If you are an Administrator you may edit **Recording Aliases** by clicking the Edit link next to the alias name

## What Owners Will See if They Have a Recording Alias

Owners can edit:

- The Template (from the drop-down menu) - check the Template description displayed to the right.
- Default Conference Permissions (who can edit and view the conference).
- Conference password.
- Default Conference Metadata (used for display and searching of the conferences).

**Recording Aliases**

Name	H323 Alias	E164 Alias
Ross's Alias	1023078	1023078
Ross's iPod Video only	1023068	1023068

Click the **Edit** link next to the alias name to edit it.



Refer to the previous pages for a list of all the fields and their description.

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Introduction

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View Conferences

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# Delete Recording Aliases

## About Deleting

Only administrators can delete recording aliases.

To delete all recording aliases, click the check box next to the title **Name** and click the **Delete Selected** button.

To delete a single alias, select the check box to the left of the alias's name and click the **Delete Selected** button.



The Recording Alias that is selected as the Default Recording Alias in the Site Settings page, cannot be deleted so its check box is greyed out.

## Selecting Which Aliases to Delete

### Recording Aliases

<input type="checkbox"/>	Name	H323 Alias	E164 Alias	Sip Uri
<input type="checkbox"/>	19thOctober <a href="#">Edit</a>	18thOctober	1029063	
<input type="checkbox"/>	Default Live and OnDemand <a href="#">Edit</a>	Live49A01041	10643102001	tcs102live@tandberg.com
<input type="checkbox"/>	Default OnDemand only <a href="#">Edit</a>	OnDemand49A01041	10643102002	tcs102od1@tandberg.com
<input type="checkbox"/>	Demo <a href="#">Edit</a>		00520	
<input type="checkbox"/>	Labour Weekend <a href="#">Edit</a>		1029044	
<input type="checkbox"/>	Live/OD Remote Joined MPEG4 Large <a href="#">Edit</a>	remoteQT102		

Delete Selected

Add Recording Alias

# TANDBERG Content Server

## View Conferences

This section contains information about the View Conferences menu, including live, recorded and pending views and explains different conference views and permissions depending on user roles and access lists set on conferences. Here you will also find instructions on how to get help when using the TANDBERG Content Server.

## About Conference Views

There are three types of conference viewing pages:

- Recorded Conferences
- Live Conferences
- Pending Conferences

Recorded Conferences is the default page to be displayed when users enter the address of the Content Server in their browsers.

The Live and Pending Conference view pages refresh automatically every 10 seconds.




You can view a live or recorded conference by clicking on the link provided in the list of live or recorded conferences. You can also view a conference by clicking on a URL link you received by email.

## Live, Recorded and Pending Conference Views

The screenshots illustrate the Tandberg Content Server interface. The top screenshot shows the 'Recorded Conferences' page with a list of sessions, including 'TANDBERG Content Server: Session #5' and 'TANDBERG Content Server: Session #4'. Below this, there are links for 'Video 480 kbps' and 'Video 710 kbps'. The middle screenshot shows the 'Pending Conferences' page, which displays a list of conferences that are waiting for their outputs to be created. The bottom screenshot shows an email invitation to view a video conference, with a URL link provided for viewing the conference.

**Recorded Conferences.** Displays conferences that have been recorded. Conferences with available outputs can be viewed.

 A transcoding icon will be shown next to conferences which are still waiting for their outputs to be processed.

Click on the **Play** button or the conference thumbnail to view the best conference size for your Internet speed, or click on the **Play Options** text link and choose your preferred conference from the list. Conferences are listed by their streaming bandwidth (from the smallest, eg. Audio, to the largest, eg. Video 710 kbps).

Click the **Download** option for a list of files you can download.

Click on the **Share** link to copy the Conference URL to the clipboard.

Click on the **Edit** link to Edit the Conference, go to the Content Editor or Add Outputs.

**Live Conferences.** Displays calls that are currently in progress.

If the live conference finishes while you are watching it, you can close the window and reopen it to watch the recorded conference.

**Pending Conferences.** This list shows conferences that have been recorded and are waiting for their outputs to be created. When all outputs have been created the conference will be removed from the **Pending** view and all outputs will be available for viewing on the **Recorded Conferences** page.



# Navigating the Interface

## Category

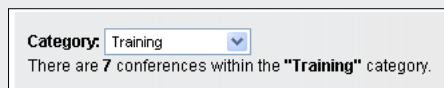
Each conference can be assigned a **Category** at time of creation or after the conference has concluded.

By default all conferences are displayed in the interface.

By selecting a category, only conferences that are assigned that category will be displayed.

In this example there are 7 conferences with the category *Training*. Clicking on a displayed category for a conference will also display all conferences belonging to that category.

Users will not be able to view or select a category unless it has been assigned to a conference they have permissions to see.

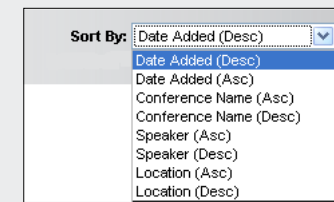


## Sorting Conferences

To sort conferences, use the **Sort By:** options at the top right of the screen.

**Desc** stands for **Descending** (going down a mountain) and means Newest first for Date Added and (Z to A) for Conference Name, Speaker and Location.

**Asc** stands for **Ascending** (going up a mountain) and means Oldest first for Date Added and (A to Z) for Conference Name, Speaker and Location.



## Searching

Conferences can be searched by **Name**, **Description**, **Speaker**, **Copyright**, and **Keywords**.

To search for a conference, enter the search criteria in the search field and click on the **Search** button.

The conference list will show only those conferences that match your search criteria.

Clicking the **<< Return to Content Library** text link will return the user and display all conferences.

**Searching within a Category.** Select the **Category**, enter the search criteria and then click the **Search** button. If you search is not successful, change your search criteria, search all conferences or return to the Content Library to enter other search words

**Search Results**  
You searched for **"MPEG4"** within **All** category.  
Your search returned **22 conferences**  
[<< Return to the Content Library](#)

Search:

Use **AND** to find conferences that have both terms in the searchable fields, e.g. **training AND education** will find all conferences with both training and education in name, description, speaker copyright or keywords.

Use **OR** to find conferences that contain either term in the searchable fields, e.g. **training OR education** will find all conferences with either training OR education in the title, description or as keywords.

Use **NOT** to find conferences that do not contain the word or phrase, e.g. **NOT training** will find all conferences that do not contain the word training.

Use **" "** to find conferences that contain the exact text between the quotes marks, e.g. **"Archived Conference"** will find all conferences that have the exact phrase between the quotes contained in the searchable fields.

## Navigation Options

The initial view of a screen that consists of a number of pages to display will look something like this view.

In this example there are more than 10 pages of screens and 51 conferences found for the current category and search.

Navigate the screens by clicking on the page numbers or the forward arrow to advance one page at a time.

After Page 1 the **Previous Page Arrow** will also be clickable.

When the last page is reached the **Next Page Arrow** will no longer be available.

When there are more than 10 pages of information, the **Next 10** pages link will appear after the next arrow.

Click on the **Next 10** and **Prev 10** links to move between the pages in groups of 10.

The numbers indicate each screen (page) of conferences displayed in order of how the conferences have been sorted using the column headings.

### Recorded Conferences

Category: All  
There are 51 conferences within the "All" category.

Search:  Search

Sort By: Date Added (Desc)  
1 2 3 4 5 6 7 8 9 10 > Next 10

Sort By: Date Added (Desc)  
1 2 3 4 5 6 7 8 9 10 > Next 10

Sort By: Date Added (Desc)  
< 1 2 3 4 5 6 7 8 9 10 > Next 10

Sort By: Date Added (Desc)  
Prev 10 < 21 22 23 24 25 26 27 28 29 30

Sort By: Date Added (Desc)  
Prev 10 < 11 12 13 14 15 16 17 18 19 20 > Next 10

Total number of conferences in this list.

Click on the **Next Page Arrow** to go to the next page.

Click on the **Page number** to go directly to that page.

Current page is shown with **strong** typeface.

# Prompting Users to Log in to View a Conference

## Setting up Authenticated Access

Users of the TANDBERG Content Server may be prompted to login to view conferences.

### Public access to the Content Server

If the Content Server has Guest Access enabled (under the [User Properties](#) section in the [Site Settings](#) menu), then users will be able to view conferences that have [Allow access to all users](#) enabled in Conference permissions without having to log in. These conferences will also be 'visible' to RSS readers.

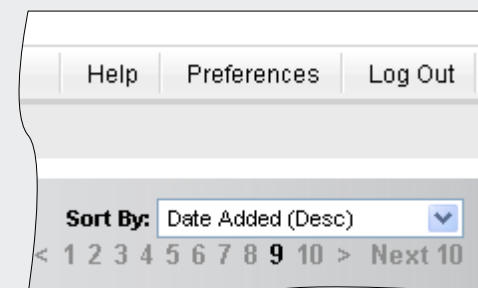
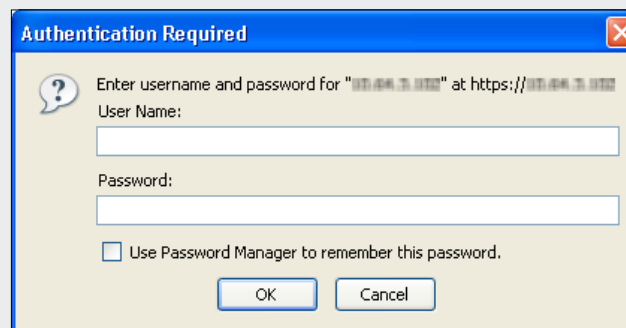
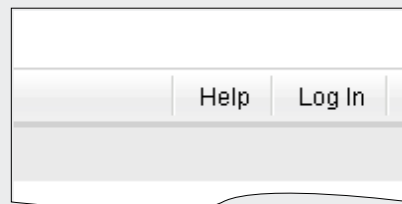
### Authenticated access to the Content Server:

- If [Local authentication](#) has been selected in [Site Settings](#), local users can log in by entering their user name and password.
- If [Domain authentication](#) has been selected in [Site Settings](#), LDAP server details have been provided and the Content Server has been added to a domain, domain users can log in by entering their DOMAINNAME\Username and password.
- If [LDAP authentication](#) has been selected in [Site Settings](#) and LDAP server details have been provided, LDAP users can log in by entering their user name and password.

Click the [Logout](#) link when finished.

If no activity is detected, you will be logged out automatically after 24 minutes.

## Log in and Log out



# Context Sensitive Help

## About Context Sensitive Help

The TANDBERG Content Server now has context sensitive help for all screens.

Activate this by clicking **Help** at the top right of each screen. A question mark will be activated for any on screen help.

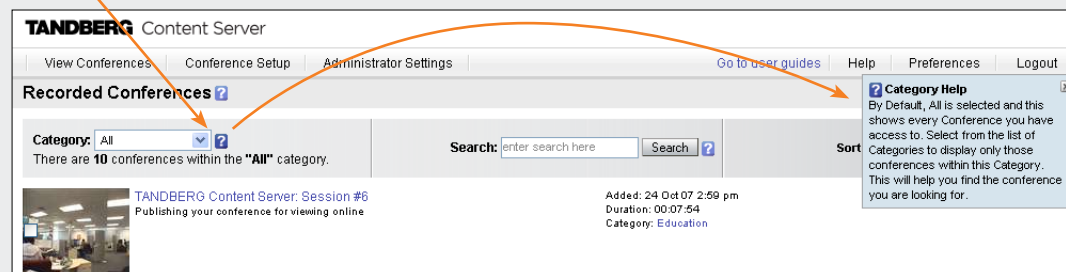
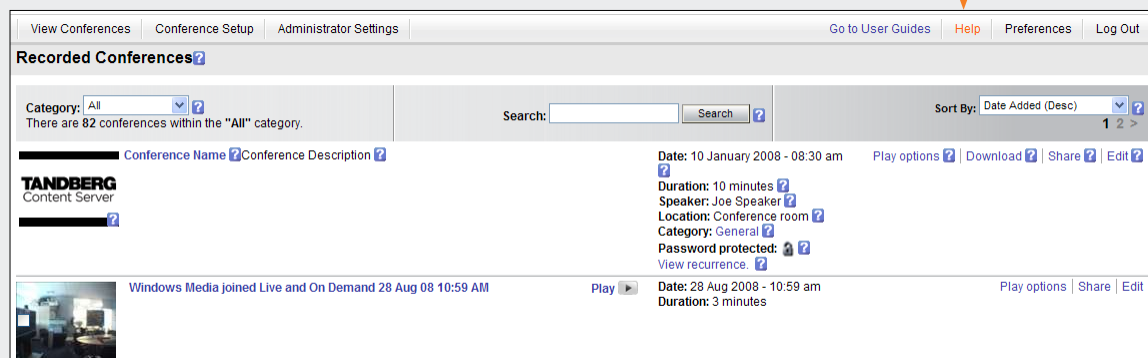
A link to the user manuals on the TANDBERG web site will also be displayed next to the help link.

The **Help** question marks will stay on each screen until the user clicks on **Help** again to turn Help off.

The link **Go to user guides** opens a new window to the **Documentation** page on [www.tandberg.com](http://www.tandberg.com) for users to find the TANDBERG Content Server User Manual.

In this example, the **Category** question mark has been clicked.

## Examples

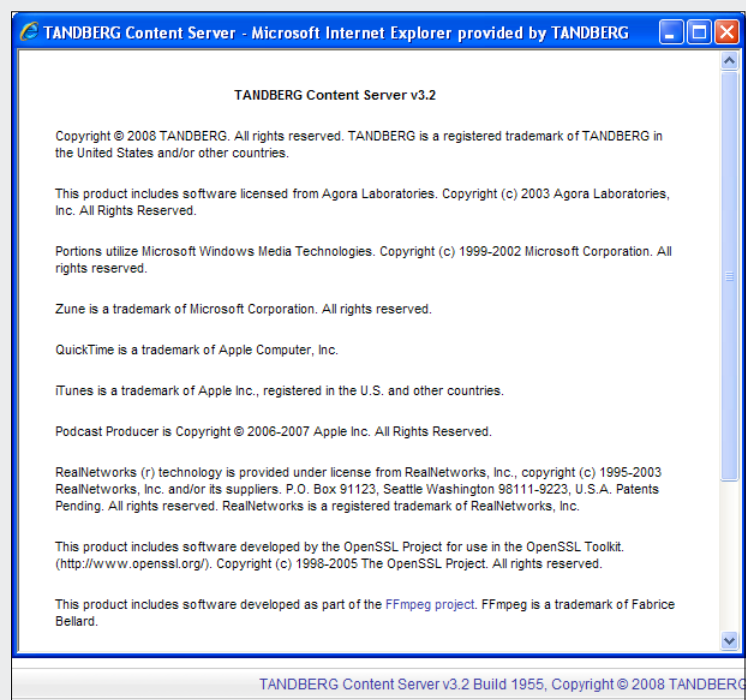


## About Displaying Copyright

To display copyright information, click on the text in the lower right corner of the screen.

This is copyright and trademark information regarding the Content Server as such and contains no copyright information regarding the recorded material itself.

## The Copyright Display



## About User Preferences

All authenticated users have access to preferences where settings such as default category and the number of items displayed on the screen can be modified.

To change your preferences, click the **Preferences** link at the top right of the screen or on your user name displayed at the bottom left of the screen. The changes will take effect the next time the user logs into the Content Server.

Your **Display Name** as displayed at the bottom left of the screen before your User Name.

The number of **Items per page** can be set to 5, 10, 20, 50 or 100.

The **Category** selection sets that category as a default. On logging in, only conferences belonging to that category will be displayed.

Choose **Automatically determine my Internet speed** so that when you click on the Play link, the Content Server will select the best size recording for your Internet connection.

Conferences where all available recordings are too big for the current connection will display the following bandwidth info warning in the interface: 'Your bandwidth has been determined at a lower rate than is necessary to display this conference recording properly. You may experience problems viewing this conference.'

## User Preferences Window

The screenshot shows the 'Edit User Preferences' window. At the top is a navigation bar with 'Help', 'Preferences', and 'Logout' buttons. The main area is titled 'Edit User Preferences' and contains three sections. The 'User Details' section shows 'User Name' as Administrator, 'Role' as admin, and 'Display Name' as System Administrator. The 'User Preferences' section includes 'Items Per Page' set to 100, 'Category' set to All, a checked box for 'Automatically determine my internet speed', and 'Speed' set to Maximum. The 'Client Environment' section shows status for Windows Media (green tick), Quicktime (green tick), Real Media (red exclamation mark), and Javascript (1.7). A 'Re-check Client Environment' button is at the bottom of this section. The window also has 'Save' and 'Return' buttons at the very bottom. Orange arrows from the left text point to the 'Preferences' button, the 'Display Name' field, the 'Items Per Page' dropdown, the 'Category' dropdown, the 'Automatically determine my internet speed' checkbox, the 'Speed' dropdown, the 'Client Environment' section, and the 'Re-check Client Environment' button.

Manually select the **Speed** of your internet connection here to override the automatic bandwidth detection. Using this option will deliver the optimum size conference (if available) for the selected speed. For conferences that have a higher bitrate (speed) than selected, a bandwidth warning will be displayed in the conference listing page. Users may not experience optimal viewing if their connection speed is significantly lower than the speed they select.

Results of the **Client Environment** check are displayed here, showing if Windows Media, QuickTime and Real Media plugins have been detected and are scriptable, and also the version of Javascript installed.

Green ticks indicate the conference formats that you can view using the Content Viewer. A red exclamation mark indicates that the plugin has not been installed, so conferences in this format cannot be viewed on your computer.

On a Macintosh, only conferences in the QuickTime (MPEG4) format can be played. The Windows Media and Real Media plugins will not be checked and will display a red exclamation mark.

The Client Environment check is run the first time you log in to the Content Server, and the results are stored in a cookie. The check is only run again when the cookie expires or is deleted.

The **Re-check Client Environment** button lets you delete the stored cookie and perform a re-check of your client environment. This is useful if you have installed a plugin and want to start watching conferences in this format.

## About RSS feeds

The Content Server provides a RSS feed document containing the most recent content (viewer links and downloads) recorded on the Content Server. This allows RSS readers to poll the Content Server and gives users the ability to check if new content is available in their RSS reader, without going to the Content Server interface.

All readers will display links to view recent content from the Content Server. Some media RSS readers, such as iTunes, will also download media from the conference, if a downloadable file has been created for the conference.

## Subscribing to RSS feeds

You may subscribe to a Content Server RSS feed by clicking on the RSS feed icon and choosing your preferred reader. Alternatively, you may enter the following URL directly into your preferred reader:  
[http://<Content\\_Server\\_address>/tcs/rss.php?category=Training&itemsPerPage=20](http://<Content_Server_address>/tcs/rss.php?category=Training&itemsPerPage=20)

To get an RSS feed only for conferences belonging to a specific category on the Content Server, save that category as your default in Preferences, then click on the RSS feed icon and subscribe to it. Alternatively, you may enter a URL like this directly into your preferred reader:

[http://<Content\\_Server\\_address>/tcs/rss.php?category=Training&itemsPerPage=20](http://<Content_Server_address>/tcs/rss.php?category=Training&itemsPerPage=20)

Your reader will then poll for the latest 20 conferences on the Content Server which have **Allow access to all users** set in their permissions and which belong to the Training Category.

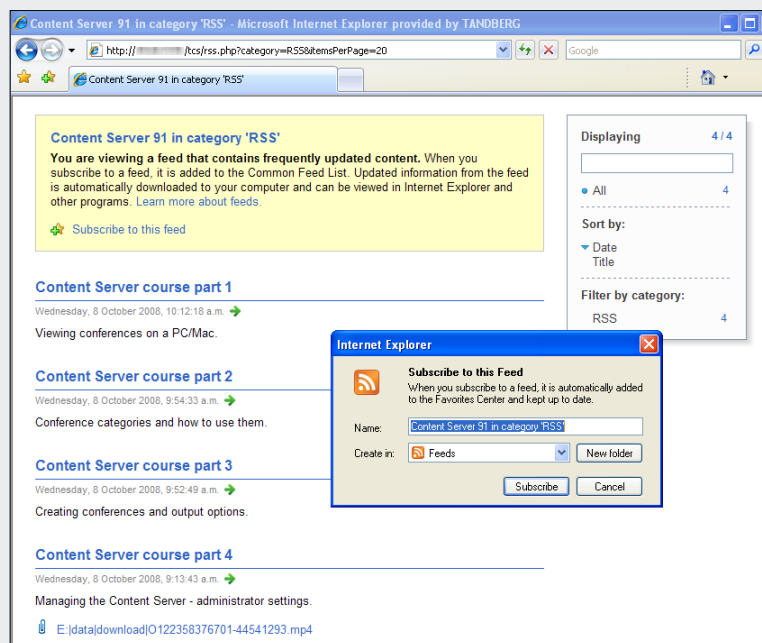


The RSS feeds functionality is only available when the Content Server has publicly available content. **Guest Access** must be on in Site Settings and conference permissions set to **Allow access to all users** in order to view those conferences through RSS feeds.

## RSS Feeds document example



A **RSS feed icon** will be displayed at the bottom of the Recorded Conferences page. In some browsers, this icon may also be displayed in the URL field.



RSS feed document displayed after clicking on the RSS feed icon (in Internet Explorer 7). Subscribe to the feed using the options provided by your browser, or copy the URL from the browser into your preferred feed reader.

# Content Viewer

TANDBERG CONTENT SERVER  
ADMINISTRATOR GUIDE

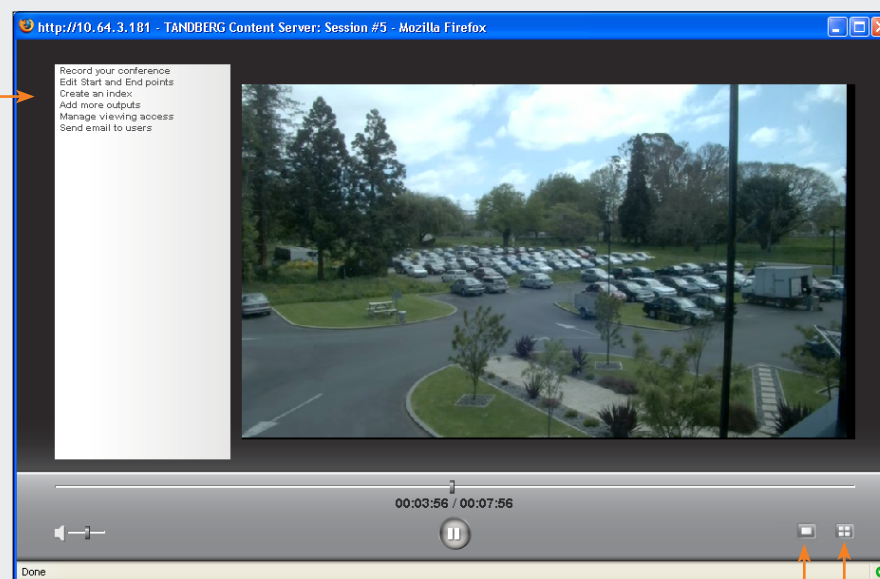
## Accessing Content Viewer

To access the **Content Viewer**, click on the thumbnail, the conference name or the **Play** icon and text. The viewer will display the best conference for your connection, as determined by your [preferences](#).

The content window consists of the main and dual streams, the indexes and the controls.

The **Conference Indexes** are displayed if there are any.

## The Content Viewer Display



The Window will display the video, either as two videos (main and dual separately), joined (main and dual as one), switching (main then dual when it is activated) or picture in picture (big dual and main in a corner). Indexes will be presented if they are present.

Click here to close the **Content Viewer**.

The **Slide list** icon displays the still images taken of the Dual Stream for an Audio or a Small Video sized Conference. Clicking a slide will display and advance the Conference to that position. Alternatively, clicking the icon again will remove the slide list from view.

The **Next layout** icon displays the next screen layout. Clicking will toggle through the different layouts available for the conference.

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# The Video Display

## The Video Display Sizes

The Conference is displayed in a window scaled for the size, conference format and items in the conference. A Conference that has indexes and dual with the main video will be displayed differently to a conference that has just one video output.

## There Are Two Ways to View a Video

1. The whole video is downloaded to your computer before it can be viewed (pseudo-streaming)

A white line in the Play Progress Bar shows you the download progress. When the video has completely downloaded, it is ready for you to play by moving the slider or clicking on any of the [Conference Indexes](#).

You can still start playing the video before it is completely downloaded but you can only move the slider to any position within the white line.

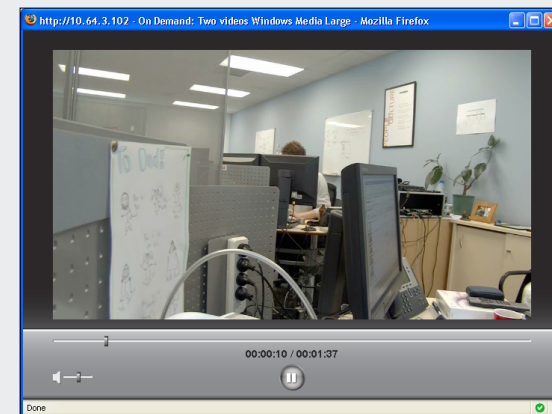
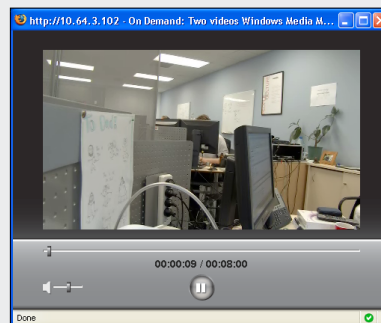
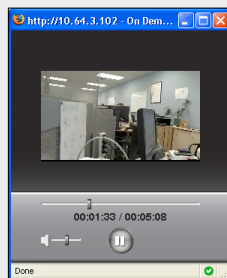
2. The video is streamed (true streaming)

The white line will not be displayed in this case.

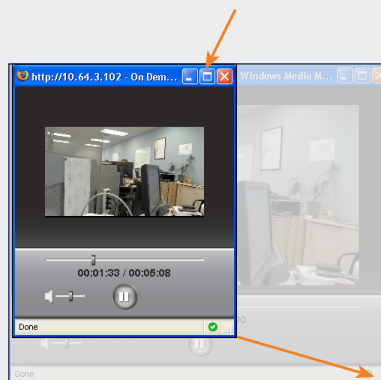
You can move the slider to any part of the video to view it. The video will stop, load the requested part of the video to your browser (called 'buffering') and then begin playing.

You can also click on an item in the [Index](#) to view the video from that location

## Examples of Video Display Sizes



## Different Layouts and Screen Sizes



Change the size of the display by maximising the window, or by dragging the window manually using the control at the bottom right of the window. The conference will adjust to a "best fit" for the size of the window.

# The Video Display Controls

## Controlling the Video Display

The video display controls let you start and pause the video as well as adjust the volume.

You can use the **Play progress bar** to move to any position in the video.

The **Sound level controller** is for adjusting the volume of the video.

Drag the volume slider right to increase the volume or left to decrease the volume.



Check your computer's audio level if no sound can be heard.



Play Pause

Click the **Play** button and the presentation will play from the current position of the slider.

The button will now change to the **Pause** button. Click to **Pause** the presentation. Click again to start playing.

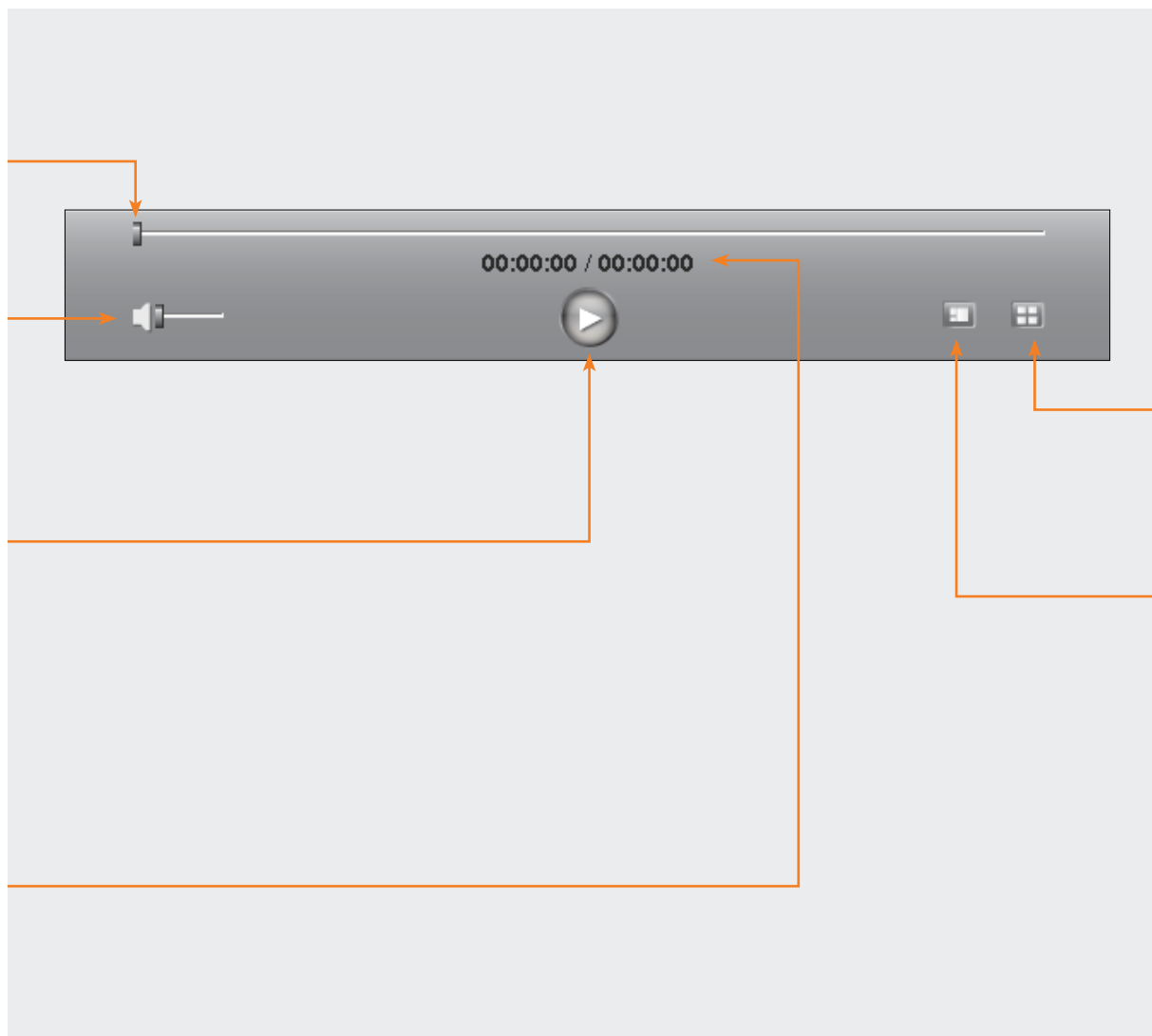
The numbers on the **Time indicator display**:

Left: the time elapsed from the start of the video.

Right: the total length of the video.

The format of the time display is hours: minutes: seconds.

## The Video Display Control Features



The **Play Progress Bar** shows:

- the progress of the downloading video
- the position where the video is playing
- a slider you can move to any position in the video.

The **Slide list** icon displays the still images taken of the Dual Stream for an Audio or a Small Video sized Conference. Clicking a slide will display and advance the Conference to that position. Alternatively, clicking the icon again will remove the slide list from view.

The **Next layout** icon displays the next screen layout. Clicking will toggle through the different layouts available for the conference.

## About Indexes

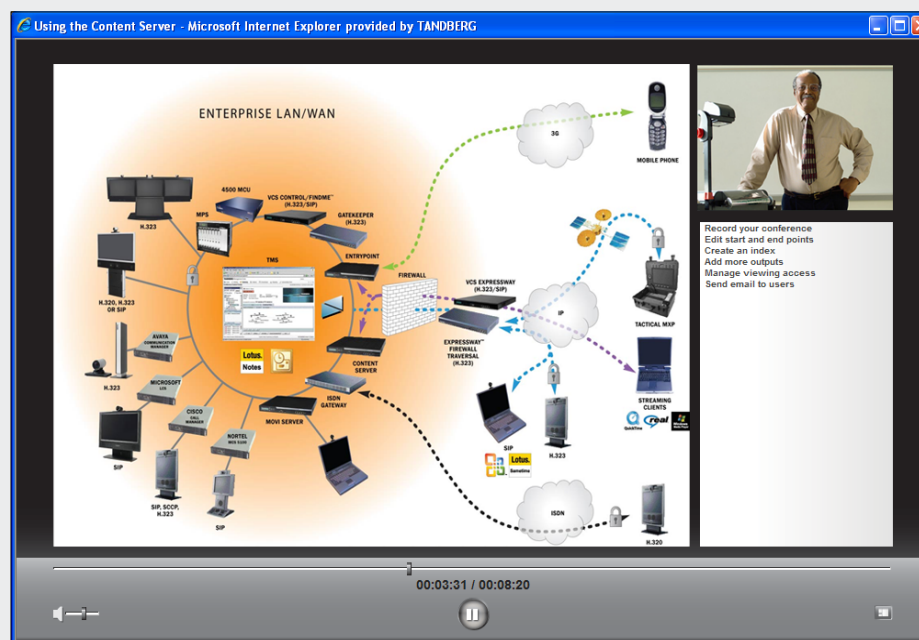
Indexes are available in the viewer if an editor of the conference has created them in the Content Editor. Indexes are used to progress the conference to the time where the index was added.

Indexes save time when users are trying to find a specific place in a conference to review.

## Index Features

By clicking an item in the **Index**, the video will move and start playing at that reference point and display the corresponding slide.

Link up the Indexes to the lower right list of Indexes in the interface.



# The Presentation Window

## About the Presentation Window

Your presentation will look differently depending on the type of layout you choose for your conference. You have four choices:

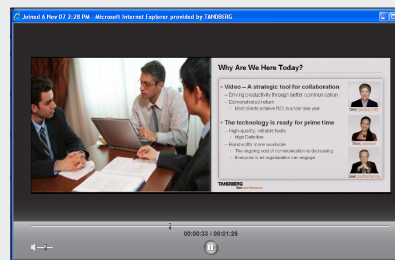
- Switching
- Two videos
- Joined
- Picture in picture.

**Switching.** If you open Dual Video stream during the conference, it will replace the view from the main camera in the **Viewer**.

**Two videos.** If Dual Video is activated during the conference, it will be displayed alongside the main video.

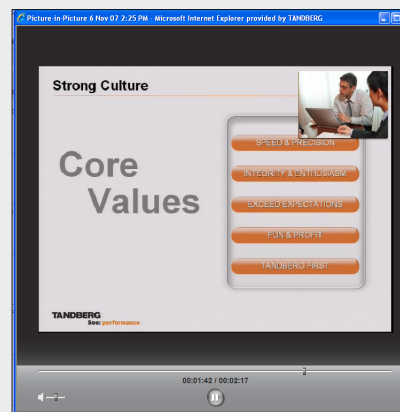
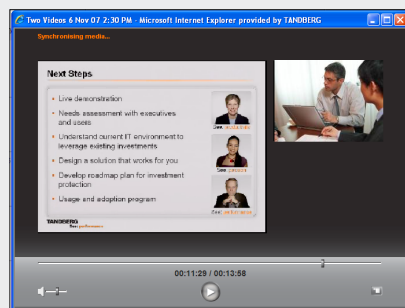
If Dual Video is never opened during the conference, then after the conference has been transcoded, only the video from the main source will be available on demand.

## How The Different Layouts Look



**Joined.** In the Joined layout, the presentation is always displayed to the right of the main video.

If Dual Video is never activated during the conference, a TANDBERG streaming poster will be displayed.



**Picture in picture.** In this layout, your presentation is displayed in the main part of the window, and the main video source is an inset picture in the top right corner (the location of the inset picture can be changed in the template).

If Dual Video is never activated during the conference, only the main video will be displayed in the Viewer.

# Editing Recorded Conferences

## About Editing Conferences

Recorded conferences can be edited. Conference permissions and metadata can be changed. Using the **Content Editor**, indexes can be added, conferences can have their In (start) and Out (end) points changed and another conference can be added. Also, additional outputs to the original template can created using **Add Outputs**.

This can all be done from the **Edit Conference** Page.

Note that:

- Only editors and administrators can edit conferences.
- Editors can edit their own conferences.
- Administrators can edit all conferences.

## Deleting Conferences

In the Recorded Conferences page, to delete one or more conferences, select the check box on the conference thumbnail and click the **Delete Selected** button at the bottom left of the page. To delete all conferences on the page, Click the **Select All** button and click the **Delete Selected** button, both located at the bottom left of the **Recorded Conferences** page.

## The Editing Conferences Page

**Edit Conference**

Save Return Content Editor Add Outputs

**Conference Permissions**

Users Editors

☐ Allow access to all users

JCLUSTER1\Administrator  
ross.dewstow

Local Format Users: MACHINE  
Domain Format Users: DOMAIN  
LDAP Format Users: user.name

Password

**Conference Metadata**

Name TANDBERG Content Server: Session #5  
Description Publishing your conference for viewing online  
Speaker  
Location  
Copyright  
Keywords  
Category Education  
Date 09 Oct 2008 - 3:43 pm  
Duration 7 minutes (00:06:32)  
URL http://10.64.3.235/tcs/?id=4D7BD078-76EF-45FA-B5EC-4C2B9A92F044 Play Email

**Conference Thumbnails**

Save Return Content Editor Add Outputs

From this page editors and administrators can edit the conference permissions (i.e. who can view and edit the conference), conference metadata: such as name, description, speaker, etc. There are also buttons for the **Content Editor** and **Add Outputs**.

# Editing Conference Permissions

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## About Editing Permissions

**Editors.** Editors can edit and delete a conference.

**Users.** Users can view the conference.

Entry in the Users field is disabled if **Allow access to all users** checkbox is selected.

Enter user or group names in the Editors or Users text fields one per line or separated by a semicolon, in the following formats:

**Adding users under Local authentication:**

Users must be entered in this format:

**MACHINE\user.name**

Local user accounts must be created on the Content Server first (see [Adding Users](#))

Adding local groups is not supported.

**Adding users under Domain authentication**

Users must be entered in this format: **DOMAIN\user.name** or **DOMAIN\user.name:Display name**

Groups must be entered in this format: **@group.name**

**Adding users under LDAP authentication**

Users must be entered in this format:

**user.name** or **user.name:Display name**

Groups must be entered in this format: **@group.name**

## The Editing Conferences Permissions Page

**Conference Permissions**

**Users**

☐ Allow access to all users

**Editors**

ANICHOLPC\Administrator

**Local Format**  
Users: MACHINE\user.name

**Domain Format**  
Users: DOMAIN\user.name Groups: @group.name

**LDAP Format**  
Users: user.name Groups: @group.name

Password

**Allow access to all users.** If the Allow access to all users checkbox is selected AND Guest access is enabled in Site Settings, all guests and authenticated users can view the conference.

If the Allow access to all users checkbox is selected AND Guest access is not enabled in Site Settings, only authenticated users can view the conference.

If the Allow access to all users checkbox is not selected, editors can add individual users in the **Users** and **groups** into the **Users** Field so they will have access to view the conference.

**Password.** Enter a password to restrict streaming access to this conference.

If no password is entered, then there is no restriction on who has access to the conference if they can view it in the conference list.

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# Editing Conference Metadata

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## The Editing Conferences Metadata Page

All the fields shown here, except the **Name** are optional and can be left empty, but the more metadata provided will make it easier for users to find your conference.

Click the **Save** button if you have made changes to any fields on the screen.

Click **Return** to go back to the Conference List.

**Copyright.** Enter any copyright information about the conference.

**Keywords.** Enter any keywords that can be used when searching for the conference. Separate each keyword with a space.

**URL.** The Conference URL is displayed on this page with two links available, Watch and Email:

Clicking on **View** to open the conference in the Viewer to watch or listen to.

Clicking on **Email** will create a new email message in your email client with the conference URL which you can send to users.

The screenshot shows a web form titled "Conference Metadata" with the following fields and values:

- Name: TANDBERG Content Server: Session #5
- Description: Publishing your conference for viewing online
- Speaker: (empty)
- Location: (empty)
- Copyright: (empty)
- Keywords: (empty)
- Category: Education (selected from a dropdown)
- Date: 09 Oct 2008 - 3:43 pm
- Duration: 7 minutes (00:06:32)
- URL: http://10.64.3.235/tcs/?id=4D7BD078-76EF-45FA-B5EC-4C2B9A92F044

At the bottom of the URL field, there are two links: "Play" and "Email".

Orange arrows from the surrounding text boxes point to the following fields:

- Name: TANDBERG Content Server: Session #5
- Description: Publishing your conference for viewing online
- Speaker: (empty)
- Location: (empty)
- Keywords: (empty)
- Category: Education
- Date: 09 Oct 2008 - 3:43 pm
- Duration: 7 minutes (00:06:32)
- URL: http://10.64.3.235/tcs/?id=4D7BD078-76EF-45FA-B5EC-4C2B9A92F044

**Name.** The name of the conference that participants will see.

**Description.** Details about the conference to be displayed beneath the Conference Name in the Conference List.

**Speaker.** Name or names of the presenters in the conference.

**Location.** Where the conference takes place.

**Category.** Select the appropriate Category from the pull down list for this conference.

**Date.** The date and time of the conference will be displayed at creation time of the conference.

**Duration.** The length of the conference. This is also updated when the conference has been edited.

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## About Conference Thumbnails

Up to 5 thumbnails will be generated for a recorded conference. They are created at 5 seconds, 1 minute, 5 minutes, 30 minutes and 1 hour.

The default thumbnail is set to 30 minutes, unless the call is shorter, then the last generated Thumbnail will be used.

If the output is **two videos**, the thumbnails will be of the main input.

For **Joined**, the thumbnail will be a combination of main and dual. If dual has not been turned on, the dual will be a poster.

For the **switching** output, the thumbnail will be main but if dual is on, then it will be the dual image.

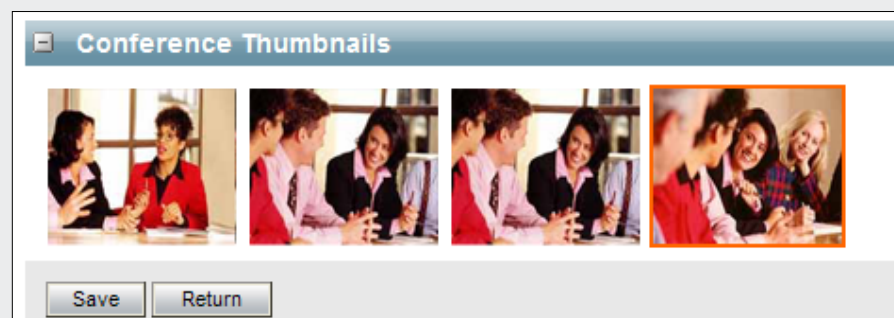
**Picture in picture** will be the dual image with the main insert.

To change the thumbnail, select another one by clicking on it and then **Save** the change. The new thumbnail will display for users in the interface.



Editors changing the thumbnail may need to empty their cache and also refresh their browser to see the change.

## The Conference Thumbnails





## About the Content Editor

Use the **Content Editor** to edit your conference in the following ways:

- Change the **In** and/or **Out** point/s of the conference
- Add indexes to the conference
- Add another conference to the edited one.

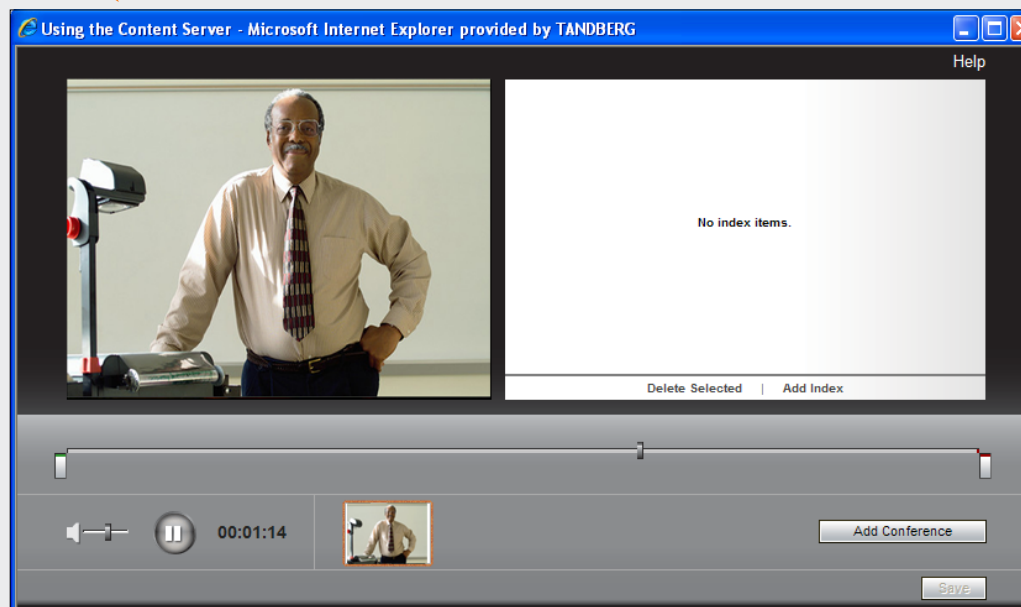
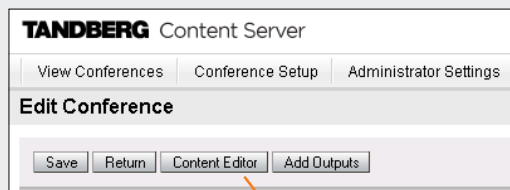
Access to the **Content Editor** is available from the **Edit Conference** page to Administrators and Users who have permission to edit a conference.

After clicking the **Content Editor** button, the **Content Editor** will open in a new window.

The top section displays the Conference movie to the left and the Indexes options to the right.

The bottom section has the conference controls, the in and out points and the option to import another Conference.

## The Content Editor Window



## About Indexes


An Index is a point in a Conference that a User can click on to advance the Conference to.

Only Editors can add Indexes to Conferences.

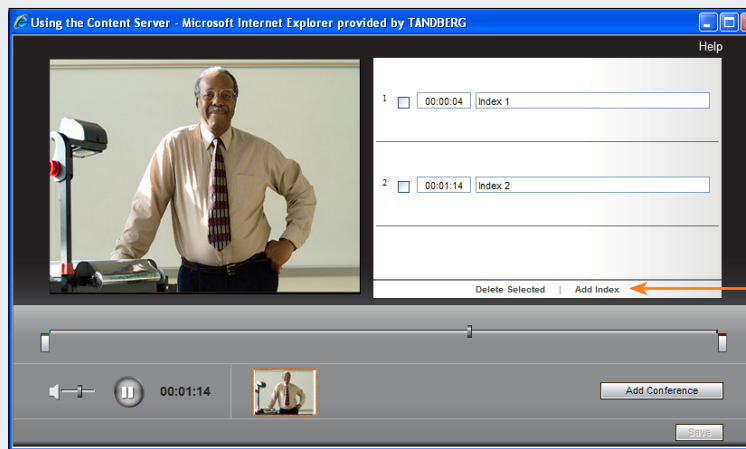
Every Conference should use Indexes as a time saving device for users to find the content they want quickly and easily.

Indexes can be selected by clicking the select box to the left of the Index.

When an Index is selected, a small vertical line will be displayed above the Time Line to indicate the position of the Index.

 Times entered as seconds will be converted.  
Example: 65 will be converted to 00:01:05

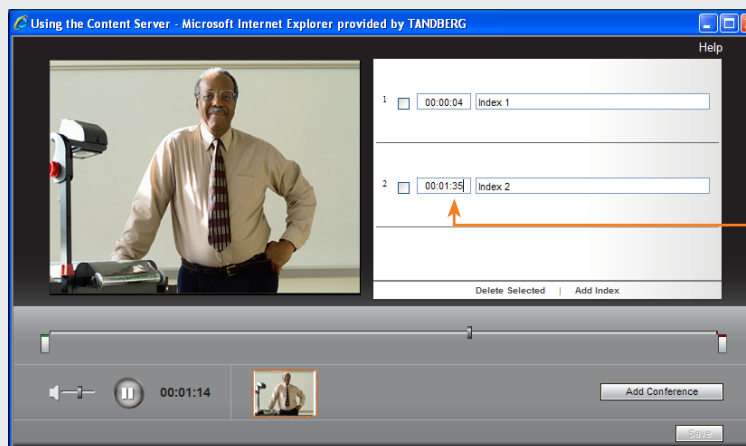
## Adding Indexes



Adding Indexes into the timeline is done by clicking the **Add Index** text link when the scrubber bar is in the correct place while the clip is playing.

The index will be added into the list and given an initial name of Index 1, Index 2 etc.

## Moving Existing Indexes



The only way to change the position of an Index is to change its time.

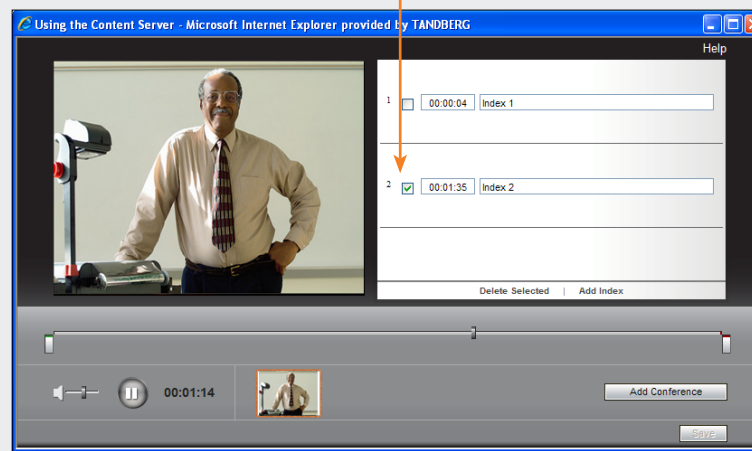
Change the time (format is hh:mm:ss) in the time field and press enter.

## Removing Indexes

Select the indexes to be removed by clicking the check box to the left of the marker time.

When the indexes that you want to remove have been selected, click the **Delete Selected** text link.

**Note:** Click the **Save** button after changes have been made.



# Adding Conferences

## About Adding Conferences

Use the **Add Conference** option to join and then edit two different conferences on your TANDBERG Content Server to play back as one conference.

Importing can only be done if the outputs of each conference are the same and the editor has permission to import the conference.

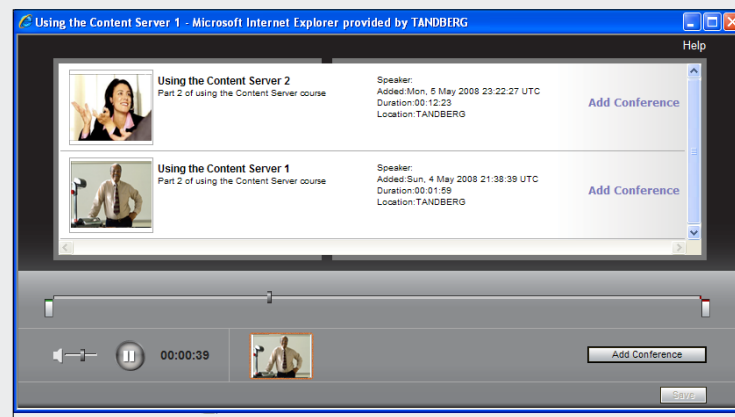
Joining two conferences creates a playlist for playing them back, but does not affect the original media files.

## Removing a Break in a Conference

You may have recorded a conference that has a break in the middle that you want to remove. This is how it is done:

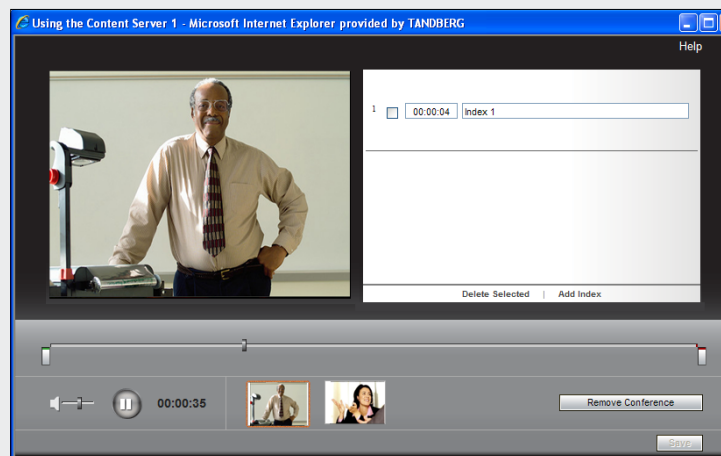
1. Open the Content Editor and add the same conference again using the **Add Conference** button.
2. Adjust the **In** and **Out** points of each conference to remove the section in the conference that you do not want.
3. Add indexes to each conference and save your changes.
4. Check the result in the Viewer and make any final adjustments.

## Steps when Adding Conferences



To join two conferences:

1. Click the **Add Conference** button to display a list of conferences available for import.
2. Click the **Add Conference** link for the Conference you want to add to the currently edited one.  
**Note:** If you choose not to add a Conference, click the **Add Conference** button again to return to the Conference editing screen.
3. Once you have added another conference, its thumbnail will be displayed to the right of the edited conference's thumbnail.  
**Note:** If the wrong conference has been added, click the **Remove Conference** button, then add the correct one. Original conferences will not be affected by adding or removing them from another conference.
4. To edit the Added Conference, click its thumbnail. The currently selected conference will have an orange rectangle around it. The selected conference can have indexes added as well as In and Out Points changed.



## About Adding Outputs

Administrators, owners and editors can **Add Outputs** to a conference once it has completed.

Why would you do this?

The original recording may not contain the correct outputs needed by your users or a request is made for a format that was not created and so you add it to the conference.

Read the [Template Editor](#) section of this Manual as to how to use this screen.

Some things to note when Adding Outputs:

- The original Layout cannot be changed
- Only 2 sizes can be chosen for Viewer and Download
- Only on-demand outputs will be created
- The total number of outputs can exceed the 6 when the Conference is created
- Adding Outputs will put an added load on the TANDBERG Content Server
- The Conference Outputs will be added into the Offline Transcoding Queue for processing and will start when all the preceding Conferences have been processed.

## The Add Outputs Page

**Edit Conference**

**Add Outputs**

**Template**

**Output Viewing Options**

Create movies for the Content Viewer ☒  
Create movies for Portable Devices ☐  
Create movies for Download ☐  
Create movies for Distribution ☐

**Content Viewer**

**Output Layout**

☐ Two videos

☒ Joined

☐ Switching

☐ Picture in picture

**Movie Settings**

Forms (choose up to 3)

Windows Media  
MPEG4  
Real Media

Conference sizes (choose up to 2)

Audio only  
Small  
Medium  
Large

# Adding Outputs Examples

## Adding Outputs to the Content Viewer

Existing output - Switching Windows Media Medium.

Selecting Format: **MPEG4** and Size: **Large** will result in the following additional outputs:

- Switching Windows Media Large
- Switching MPEG4 Medium
- Switching MPEG4 Large

**Content Viewer**

**Output Layout**

☐ Two videos ☐ Joined ☒ Switching ☐ Picture in picture

**Movie Settings**

Formats (choose up to 3)

Windows Media	Audio only
MPEG4	Small
Real Media	Medium
	Large

Conference sizes (choose up to 2)

**On Demand Media Server Settings** Please select the Media Servers that will serve the following formats on demand

Windows Media	Local Windows Media Streaming Server
MPEG4	Local IS Web Server
Real Media	Local IS Web Server

## Adding Outputs for Portable Devices

Existing output - Switching iPod Video download.

Selecting Portable Device: **iPod Audio** will result in an additional iPod Audio download.

**Portable Devices**

**Output Layout**

☒ Switching ☐ Picture in picture

**Movie Settings**

Portable Devices

iPod Video
iPod Audio
Zune Video
Zune Audio

## Adding Outputs for Download

Existing output - Switching Windows Media Medium download.

Selecting Size: **Audio only** will result in an additional Windows Media Audio only download.

**Download**

**Output Layout**

☐ Joined ☒ Switching ☐ Picture in picture

**Movie Settings**

Formats (choose up to 3)

Windows Media	Audio only
MPEG4	Small
Real Media	Medium
	Large

Sizes (choose up to 2)

## Adding Outputs for Distribution

Existing output - Joined Podcast Producer output.

Selecting Distribution Server: **iTunes U** and **Add audio only output** will result in two outputs sent to iTunes U.

**Distribution**

**Output Layout**

☒ Joined ☐ Switching ☐ Picture in picture

**Distribution Servers**

☒ Podcast Producer

Media Server: **TANDBERG Intro Blog with Titles**

☒ iTunes U

Media Server: **TANDBERG History Tab**

Size: **Medium**

Add audio only output ☒

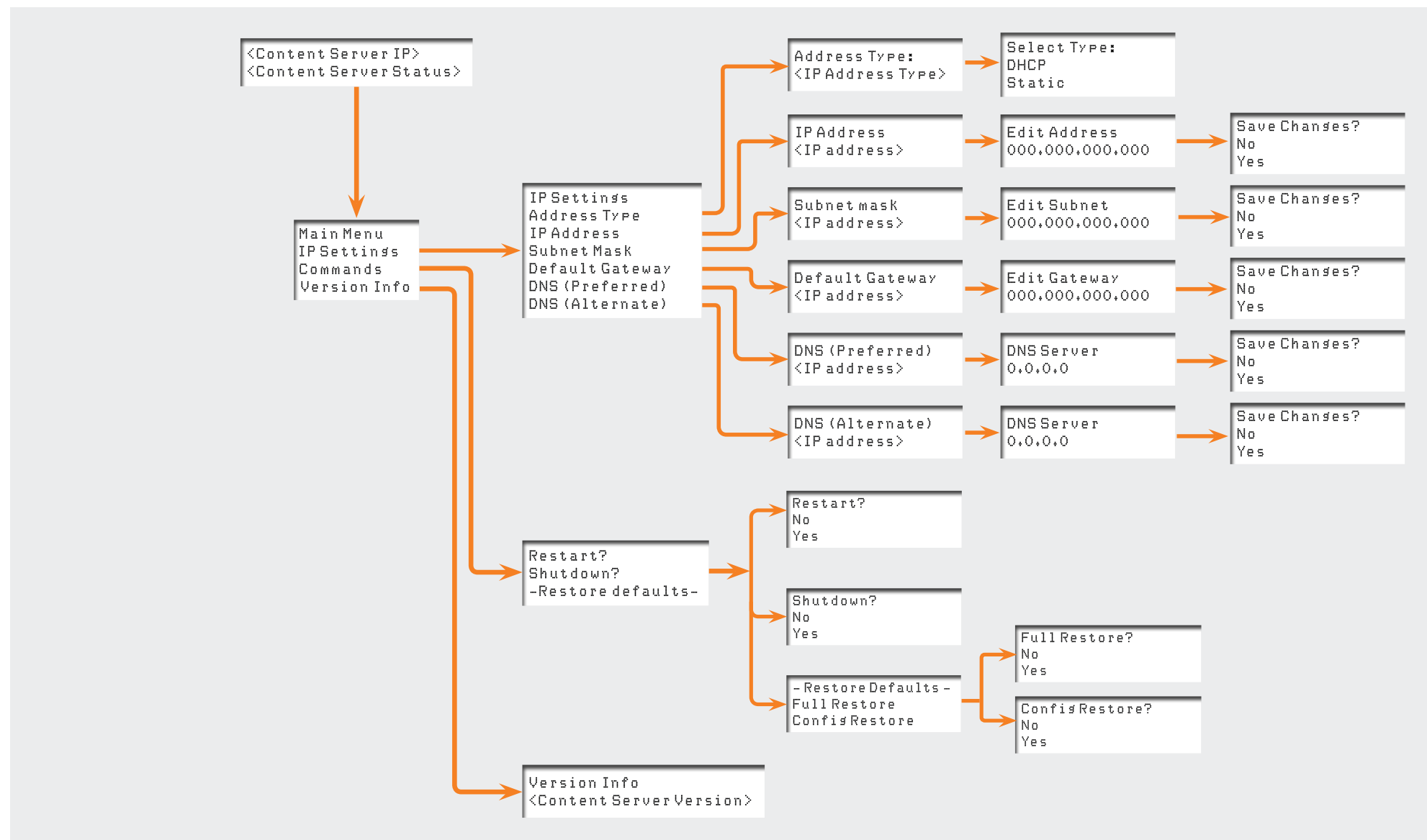
# TANDBERG Content Server

## Appendices

The Appendices contain information you may need to better understand the TANDBERG Content Server.

Here you will find an LCD panel overview, a compatibility guide (which browser and media players version to use), Content Server port assignment, recording templates overview and Remote Desktop information.

# Appendix 1: LED Panel Menu Structure





## Appendix 2: Compatibility

### About Compatibility

For correct playback of streaming video on client machines, please read the compatibility notes on this page.

Logged in users can view the results of Client Environment detection check and the conference formats they can view in their [Preferences](#).



Please ensure that you have JavaScript, ActiveX and media plugins enabled in your browser.

### Platform and Browser Version Compatibility

OS	Browser	MPEG4	Windows Media	Real Media
MAC	Firefox 2 and higher	Yes	No	No
	Safari 2 and higher	Yes	No	No
WIN	Mozilla Firefox 2 and higher	Yes	Yes*	Yes
	Internet Explorer 6.0, and higher	Yes	Yes	Yes

### \*Playback of Windows Media Content in Mozilla Firefox

**Platform:** Windows.

**Browser version:** Mozilla Firefox (all versions).

**Streaming content format:** Windows Media content.

Mozilla Firefox browsers require a special Microsoft Windows Media Player Plugin control plugin to be installed to display movies in Windows Media® WMV format.

The following Microsoft Windows Media Player Plugin for Mozilla Firefox has been tested and is available as a free download at the time of publishing this user guide from:

<http://port25.technet.com/pages/windows-media-player-firefox-plugin-download.aspx>

### Recommended Player Versions

Content Type	Recommended Player
Windows Media	Windows Media Player 9.x or higher
Real Media	RealPlayer™ 10.x
MPEG4	QuickTime 7.x

## Appendix 3: Recording Templates at a Glance

Description	Recorded Output
Windows Media PoP Live and On Demand	Uses the Two Videos output consisting of a Main and a Dual. Conference size is Medium for both Live and On Demand.
Windows Media PoP Live and On Demand with Portable Device Download	Uses the Two Videos output consisting of a Main and a Dual. Conference size is Medium for both Live and On Demand. Also has downloadable Video outputs for Zune and iPod using the Switching Output.
Windows Media PoP On Demand Only	Uses the Two Videos output consisting of a Main and a Dual. Conference size is Medium for On Demand. No live output from this Template.
Windows Media Single Live and On Demand	Uses the Switching output. Displays Main but when Dual is switched on, Dual is displayed. Conference size is Medium for both Live and On Demand.
Windows Media Single On Demand Only	Uses the Switching output. Displays Main but when Dual is switched on, Dual is displayed. Conference size is Medium for On Demand viewing only.

## Appendix 4: TANDBERG Content Server Port Assignment

The table lists ports used by the TANDBERG Content Server.

Port	Protocols	Used by
80	TCP	The TANDBERG Content Server web application
443	TCP	The TANDBERG Content Server web application on SSL
554	TCP, UDP	WMS RTSP Server Control Protocol
1718	UDP	Gatekeeper discovery
1719	UDP	RAS
1720		Listen Port
1755	TCP, UDP	WMS MMS Server Control Protocol
2090	TCP	The TANDBERG Content Server database
3389	TCP	Remote Desktop Protocol
8008	TCP	The TANDBERG Content Server application
8080	TCP	WMS HTTP Server Control Protocol
8096	TCP	Windows Media Administration Site on SSL
8098	TCP	Windows Web Administration on SSL

## Appendix 5: Using Remote Desktop

### About Remote Desktop

Content Server software upgrades and security updates need to be installed using Remote Desktop access.

Remote Desktop access is also used for:

- Backing up the Content Server. See also the [Backing Up and Restoring](#) section.
- Changing the default media storage location. See also the [Media Storage Location](#) section.
- Installing the Security Certificate. See the [Security Management](#) section.

### Using Remote Desktop

- 1 Open the Remote Desktop Utility on your PC  
([Start](#)>[Programs](#)>[Accessories](#)>[Communications](#)>[Remote Desktop Connection](#)).
- 2 Provide the local administrator username and password.
- 3 If you want to copy security updates or software upgrade files from your PC to the Content Server desktop, click on [Options](#)>[LocalResources](#) and select [Disk Drives](#), then click on [Connect](#).
- 4 Once you are logged in, you can gain access to security updates or software upgrade files on your local PC by expanding [My Computer](#). Note that mapped drives correspond to the drives on your PC.
- 5 Once you have finished the necessary installations, restart the Content Server if prompted to do so. Otherwise, terminate your Remote Desktop session by logging off. Please note that if you choose [Shut down](#), it will shut down the Content Server!

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